SIXTY-FOUR YEARS A DOCTOR

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The Dedication.

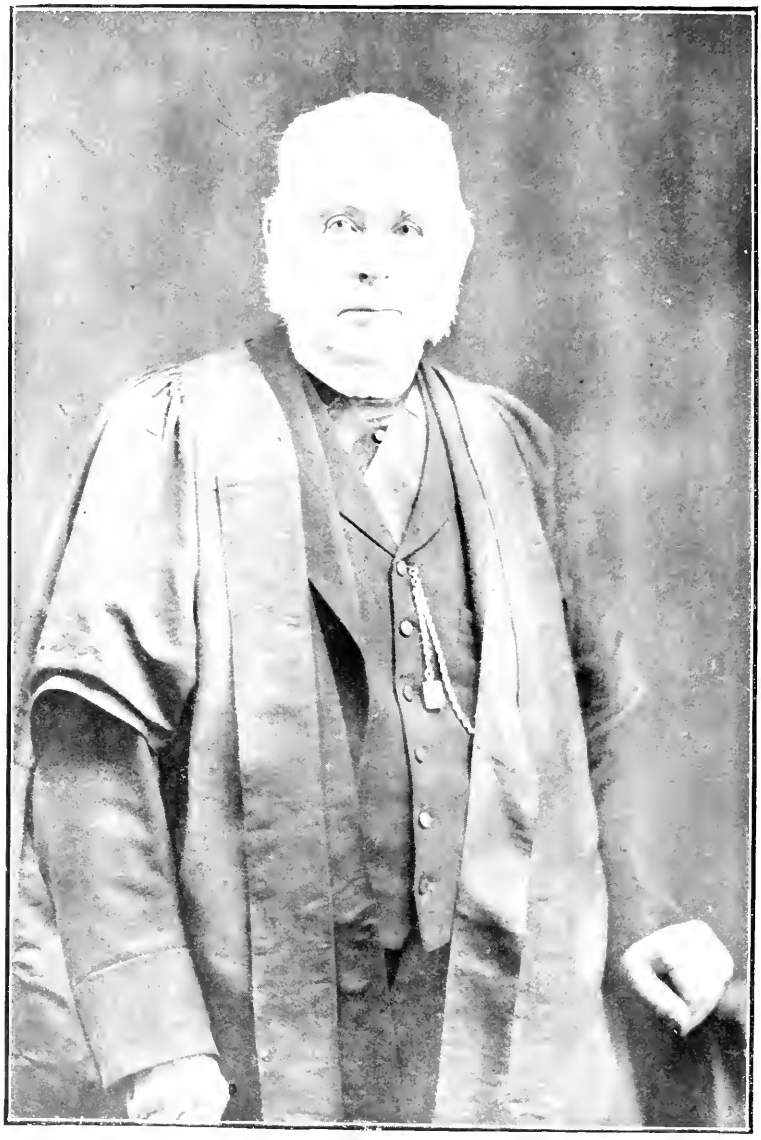
To Sir Thomas Clifford Allbutt, K.C.B., St. Radegund's, Chaucer Road, Cambridge, Regius Professor of Physic at the University of Cambridge, whose pathway through life from 1836 to 1922 has been concurrent with my own, this book of Reminiscences is dedicated with a feeling of the most profound respect and admiration.

Charles Brown.

FOREWORD

"Sixty-four Years a Doctor" is the life history of Sir Charles Brown, F.R.C.P., Honorary M.A. of Cambridge, Honorary Freeman of the Borough of Preston, and one of its oldest and most honoured citizens. Dr. Lapthorn Smith's informative book, "How to be Useful and Happy from Sixty to Ninety," contains some instructions that the Author of the following reminiscences had been carrying out with gratifying results long before he became acquainted with the work in question. These reminiscences are the record of a doctor who is now in his eighty-sixth year, and cover one of the most interesting periods in national and local history. They are the intimate personal recollections and reflections of an old Prestonian. They also take the form of a review of the more important social phases of the greater portion of the last and the beginning of the present century, with special reference to the enormous advances made during this period in medical science and in the development of methods for alleviating physical pain and suffering. What profits may accrue from the publication are to be applied for the benefit of the Preston and County Royal Infirmary, with which the Author has been connected since its inception.

THE PUBLISHERS.



Charles Brown

SIXTY-FOUR YEARS A DOCTOR

REMINISCENCES OF SIR CHARLES BROWN AN OCTOGENARIAN LANCASHIRE DOCTOR

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PREFACE.

I HAVE often been asked to publish some of my Reminiscences, and I have much pleasure in doing so. I have undertaken the work with three objects in view:—

1. To oblige my many kind friends.

2. To inspire the mind of the public with a feeling of thankfulness for the discovery, between 1836 and 1922, of inventions and appliances which have added so much to the interest and enjoyment of life.

3. To raise money, by the sale of the book, for the Preston Royal Infirmary, which is in much need of financial assistance.

R. C. BROWN.

27 Winckley Square,
Preston.
April, 1922.

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SIXTY-FOUR YEARS A DOCTOR

MY FATHER.

MY father, Robert Brown, was elected an Honorary Fellow of the Royal College of Surgeons of England in 1852, and was an Alderman of the Borough up to the time of his death, which took place in February, 1858, when he was 58 years of age.

My father practised in Preston from 1822 to 1857. At the age of 14 he was bound an apprentice for seven years to a Surgeon at Skipton in Yorkshire. When he had completed his apprenticeship, he spent one year at St. George's Hospital which was all that was required in those days. After having passed his examinations he became a member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1821. During the early part of his apprenticeship he had to make up bottles of medicine, roll out pills, fill small pots with ointment, and spread blisters and warming plasters. After 17 he had to attend patients who were ill, and he also attended a very large number of what the late Mr. Albert Smith called "Census increasing cases." He was, therefore, what was called an unqualified assistant, but, of course, such a person cannot now be legally employed. As the practice was eminently what is called a country one, most of his visiting was done on horseback, and I have heard him say that he returned from some of his journeys so fatigued that, after unsaddling the faithful animal which had conveyed him on his long journeys, he lay down in the straw and slept in the stall during the remainder of the night. Some of the domestic discomforts

which he experienced formed a striking contrast to the luxuries which I enjoy. He had to wash at a stone pump trough in the stable yard in winter and summer and all weather, whereas I have a beautiful full length marble bath combined with a shower bath supplied with hot and cold water, and a wash hand basin similarly furnished.

The stirring times through which we are passing throw our thoughts back to the days of our grandfathers, when hours were longer and the reward much less than now. Even in domestic service the contrast is very great. I and my two brothers received our ordinary education at the Preston Grammar School, and, until 1848, when my elder brother went to Christ College, Cambridge, the household consisted of my father, mother, two brothers, myself, four sisters, a governess, a nurse, a cook, a parlourmaid, and a housemaid. The cook had to prepare breakfast, dinner, tea and supper for these 14 grown-up persons and children. The parlourmaid had to wait upon all these 14 persons, except the two youngest children and her fellow servants; she also had to answer the front door bell both during the day and during the night, and the rings of the front door bell were very frequent 70 years ago. The housemaid had, with the assistance of the parlourmaid, to make all the beds and she had also to attend to most of the rooms. All the washing of the household was done by the cook, housemaid, parlourmaid, and nurse. They were called up for the purpose every Monday morning at one o'clock by the night watchman who patrolled the neighbourhood, and called out the hour and state of the weather; for example, "Past ten o'clock, fine night"; "Past two o'clock, wet morning"; "Past five o'clock, cloudy morning." The cook, housemaid, parlourmaid, and nurse slept in the same bedroom. There was no gas in any of the bedrooms, and such a luxury as a gas fire was unknown. Coals had to be carried from the cellar to all parts of the house where fires were required. The grates were not so near the floor as they are now, and, instead of the tiled hearth of the present day, there was a stone flag which had to be washed and whitened with pipe

clay. The floors of the bedroom were covered with carpet, not with linoleum, which is much easier to clean and to keep clean. The servants had to clean the outside as well as the inside of the windows. There were no window cleaning companies in those days—70 years ago.

The standard of wages was evidently a very low one. The governess, an educated lady, had £20 a year ; the cook, £12 ; the housemaid, £11 ; the parlourmaid, £10 ; and the nurse, £8. The coachman, a married man with several children, had 14s. a week, and a bonus of £2 on Christmas Day. The standard wage of the men who drove carts for the coal merchants was 15s. a week, even so late as 1860. The coachman had the care of three horses—" Lop," " Dick " and " Corinthian," and he had to go out when required during the night, as well as during the day. There were no livery stables to supply such a luxury as a cab. It was the custom to " clip " the horses in the autumn, and instead of this being done by a mechanical cutter designed for the purpose, it was done with a comb and pair of scissors, and the horse was afterwards singed with naphtha. My father at first rode in a two wheeled gig during fine weather, and in a covered four-wheeled carriage when it was wet, but as there was danger of the horse coming down and breaking the shafts of the gig, injuring its knees, and throwing my father and the coachman on to its back, a four wheeled open carriage, called a phæton, was substituted for the gig. Samuel Cave, the coachman, had four sons, Samuel, William, Richard, and John, and three daughters, Anne, Isabella, and Sarah. The four sons became respectively, caretaker of a Bank in London ; an inspector in the Preston Borough Police ; a warder in the Preston Prison, or House of Correction as it was then called ; and a sanitary inspector in the service of the Preston Corporation. The three daughters until they married were powerloom weavers at the works of the great firm, Horrockses, Crewdson & Co., Ltd. The coachman's wife, and my good mother, were examples in character generally, and household management in particular.

I have in my possession the housekeeping books in

which are recorded the weekly and yearly cost of fuel, food, clothing, education and other necessaries from 1832, four years before I was born. Since my sister died in 1904, at the age of 70, I have kept the accounts up-to-date. I have selected the year 1848 as my starting point in giving these particulars because it is the one when the members of the household were reduced from 14 to 13 by the removal of my elder brother to Christ College, Cambridge.

Housekeeping Bills in 1848.

Comparison between the cost of living to-day and in the year before the war are perhaps too discouraging to be of general interest, and only too readily available to those who keep household accounts.

The housekeeper's bill for the year (not including rent, rates, taxes, or fuel and lighting), amounted to £139 14s. 3½d.

The various items set out in detail show nothing of the cost per pound of the various commodities, but, bearing in mind that each article was provided in quantities ample for the needs of 14 persons for 52 weeks, the amounts are amazingly small. Bread was home-baked, of course, as the following items show:—Flour, £14 13s.; barm, 12s. 3½d.; baking, 11s. 7½d. (less than 6s. per week for 14 people).

Other items tell their own eloquent story, such as butcher, £38 4s. 1d.; butter, £13 18s. 4½d.; cheese, £2 9s. 1d.; eggs, £3 12s. 2d.; fish, £6 17s. 11d.; groceries, £8 0s. 0½d.; milk, £12 2s. 2d.; poultry, £5 14s. 10d.; tea, £6 7s. 3d.; coffee, £4 9s. 5d.; fruit, £6 17s. 11d.; meal, 15s. 6d.; vegetables, £4 10s. 3½d. A final item which rounds off the whole bill, and will find a parallel in house-keeping accounts in all ages, is sundries, £10 0s. 6d.

In 1845 my father was the secretary of a committee appointed to promote the establishment of a Hospital or Infirmary for Preston and neighbourhood. A meeting was held in the Council Chamber. The following circular was issued:—

Sir,

I am desired by his Worship the Mayor and the Provisional Committee respectfully to solicit your pecuniary assistance and co-

operation to accomplish the erection of a Hospital or Infirmary for the benefit of the Sick Poor of Preston and the neighbourhood.

Your obedient Servant,
ROBERT BROWN,
Winckley Square, Preston. Secretary.

New Hospital or Infirmary.

At a meeting of the friends and promoters of the establishment of a Hospital or Infirmary for Preston and the neighbourhood, held in the Council Chamber, Town Hall, Preston, on Wednesday, November 5th, 1845.

John Paley, Junr., Esq., in the Chair.

On the motion of Robert W. Hopkins, Esq.
Seconded by R. Newsham, Esq.
It was resolved :—

1. That it is the opinion of this Meeting that an Infirmary or Hospital, for the reception and relief of the Sick Poor, would be highly beneficial to the town and neighbourhood of Preston.

On the motion of Charles Swainson, Esq.
Seconded by W. Marshall, Esq.
It was resolved :—

2. That, convinced of the advantages that would result from such an establishment, the gentlemen present deem it eminently entitled to their patronage and support, and will use their best endeavours to promote its erection.

On the motion of Thomas Miller, Esq.
Seconded by Thomas German, Esq.
It was resolved :—

3. That the following gentlemen be appointed a Provisional Committee, with power to add to their number, to forward the business and to receive the Donations and Subscriptions :—The Mayor, the Rev. J. Owen Parr, the Rev. J. Clay, the Magistrates of the Borough, and County Magistrates residing in and near the town, John Addison, R. W. Hopkins, T. Petty, T. Miller, Thomas Walmsley, John Horrocks, Paul Catterall, John Catterall, James German, E. C. Gorst, J. Rofe, Chas. Swainson, W. Howitt, R. Brown, and J. H. Norris, M.D., Esquires.

On the motion of Rev. J. Owen Parr, Vicar.
Seconded by Peter Haydock, Esq.
It was resolved :—

4. That in the event of obtaining adequate funds for effecting the erection of such an Infirmary, &c., such Committee be further empowered to make arrangements respecting the site and plan of the building, and all other particulars which to them shall seem expedient for promoting the general object of the Charity, and completing its establishment ; and that such arrangements be then submitted to a General Meeting for the approval of the contributors and subscribers.

The Mayor having quitted the Chair, it was moved by Charles Swainson, Esq., and seconded by John Winstanley, Esq., and carried unanimously :—

That the best thanks be given to his Worship the Mayor, for his ability in conducting the business of the meeting.

ROBERT BROWN,
Preston, November 10th, 1845. Secretary.

MY OWN LIFE.

I WAS born at 27, Winckley Square, Preston, on October 2, 1836, and, with the exception of an absence of ten years—1855 to 1865—I have lived in it for 75 years.

I was educated at the Preston Grammar School, under the Rev. George Nun Smith and the Rev. Edwin Smith, from 1845 to 1853. From 1853 to 1855 I was a medical pupil of Mr. Thomas Dixon, who lived at the Fishergate corner of Fox Street, and I went with him daily to the Preston Prison, of which he was the Visiting Surgeon. I also went every morning to the old Preston Dispensary to attend the practice in the out-patient department. In July, 1853, I passed a preliminary examination in Classics and Mathematics at the Apothecaries' Hall, Blackfriars Road, London, and in July, 1855, I was successful in passing the Matriculation Examination at the University of London. In October, 1855, I commenced my medical curriculum at King's College, London, and remained there until November, 1858, when I passed the examination at the Royal College of Surgeons of England and the Society of Apothecaries, and received my licences to practice.

My eldest brother, the Rev. James Taylor Brown, was the Vicar of Holy Trinity Church from 1867 until he died in 1875 at the age of 45, leaving a widow and seven children, the eldest of whom was only 12 years of age. An eighth was born a few months after my brother's death, and therefore a great responsibility was imposed upon me.

In 1889 a brother-in-law passed away very suddenly, leaving a widow and eight children, many of whom required my assistance.

When I had completed my medical curriculum at King's College Hospital and obtained my licences to practice, conferred by the Royal College of Surgeons and the Society of Apothecaries in November, 1858, I should have preferred

to remain in London in order to be the unsalaried House Surgeon and House Physician at the Hospital, and to obtain some of the higher degrees in medicine at the University of London, at which I had already passed the Matriculation Examination. In consequence, however, of the death of my father in February, 1858, after a long and expensive illness, I was obliged to try and earn my own living, and as the post of House Surgeon to the old Preston Dispensary in Fishergate, with rooms, coal and gas, but not board, and a salary of £100 a year, was offered to me, I thankfully accepted it. There was abundant variety of practice, but as I had to visit patients in all parts of the town, on foot, the position might be fairly called a hard one. A few weeks after I had commenced my duties, an old Prestonian, whom I knew, addressed me just as I was going in at the front door, and asked me how I liked the appointment. I replied, "Very much, but I find the work rather hard." He then said, "I am glad you are pleased. A young friend of mine held the appointment, and he died of fever in a fortnight." He said "Good-night," abruptly walked away, and left me to reflect on his discouraging remarks.

The old Preston Dispensary occupied a portion of the space between Lune Street and Fox Street. It subsequently became the site of the Savings Bank, and it is now the office of the Prudential Life Assurance Co.

I soon began to occupy the little spare time I had in preparing for the higher degrees, and in August, 1859, I passed the first examination for the degree of Bachelor of Medicine at the University of London. Before I could present myself for the second examination for the M.B. degree, an interval of two years was required, and certificates of having attended some more lectures at King's College. I, therefore, obtained permission from the Governors of the Dispensary for eight months' leave of absence, and I provided as a substitute Dr. John Easton, who had been a fellow student at the Hospital. His parents, who lived at 25, Russell Square, had treated me with much kindness and hospitality during my medical curriculum, and I was glad to have the

opportunity of showing a recognition of their goodness to me when his cousin many years afterwards came to be a teacher of music at the High School for Girls in Winckley Square, Preston.

On my arrival in London in January, 1861, I obtained rooms in Portugal Street, Lincoln's Inn, and made arrangements to attend the required lectures—the out patient department at the Royal Ophthalmic Hospital in Moorfields, and the Hospital for Skin Diseases in Blackfriars Road. I subsequently resided for a few weeks at the General Lying-in Hospital, York Road, Lambeth, and lived for six weeks on the Hospital Ship Dreadnought, which was moored in the Thames, off Greenwich. At the end of the eight months I returned to the Preston Dispensary, and worked hard to complete my preparation for the second M.B. examination, which I passed in November, 1861. I soon began to work very hard again for the Fellowship of the Royal College of Surgeons of England, and was successful in passing the examination in November, 1862. I remained at the Dispensary until March 10th, 1863, when I resigned my appointment and went to Edinburgh for a few weeks.

I next made the Rotunda Hospital, Dublin, my headquarters for four weeks, and finally returned to Preston in June, 1863. I have been in Preston ever since.

I returned to Winckley Square, Preston, at the end of May, 1863, and remained here until August the 18th, when I removed to 43, Lune Street, where I commenced private practice in a house which had previously been occupied in succession by Dr. Norris and Dr. Fearnside. I remained there until March, 1865, when I came back to Winckley Square, and I have been here ever since.

Soon after my return from Dublin I began to prepare for the M.D. examination at the University of London held in November, 1863, and I am sorry to say that I was not successful in passing. The two subjects were Logic and Moral Philosophy and Medicine, and they must be taken together. If a man failed in the Logic and Moral Philosophy paper, however well he satisfied the Examiners in Medicine,

he was rejected. Nearly half the candidates who were up had the same fate as myself. Two of the questions in Logic and Moral Philosophy were :—

1. Upon what grounds has it been maintained that all demonstrative science is hypothetical ?

2. What is meant by the doctrine that time and space are forms of thought ? Give the arguments for and against it.

After this failure I tried to console myself with the reflection that I had had enough of examinations, but the ambition returned, and I prepared for and passed the examination for the Membership of the Royal College of Physicians in September, 1865. Nine years later I again presented myself for the examination in Logic and Moral Philosophy, which could then be taken alone, but I am sorry to say I was not successful. However I went up again in 1876, and triumphed.

Shortly after I had retired from the post of House Surgeon, in 1863, I was appointed one of the Honorary Medical Officers, and when the Royal Infirmary was opened in 1870, I was transferred to the Staff of that Institution, and I have long been the only survivor of the original members. I have seen no less than 14 of those with whom I have been associated on the Infirmary Staff pass away.

In July, 1863, I was appointed Certifying Surgeon under the Factory Act ; from 1865 to 1870 I was an Assistant Surgeon in the 3rd Royal Lancashire Militia, when it was under the command of the late Lord Winmarleigh ; in 1870, one of the Honorary Medical Officers of the Preston and County of Lancaster Royal Infirmary ; in 1873, Local Medical Officer to the London and North-Western and Lancashire and Yorkshire Railway Companies ; in 1894, Medical Officer to the Lancashire County Constabulary. In 1893 I was elected Consulting Medical Officer to the Harris Orphanage and Cross School for the Deaf and Dumb.

In the early part of 1900, when I was 64 years of age, I was again disturbed by a desire to pass the Medical portion of the M.D. examination at the University of London, the

date of which was fixed for December 1st. I worked hard in preparing for it, and during October I went two or three times a week by the 6-50 a.m. train to Manchester in order to be at the Royal Infirmary by nine o'clock to go round with Dr. Kelynack for the purpose of examining some of Dr. Dreschfeld's most interesting cases. In November I went to stay at the Euston Hotel, London, that I might visit the wards of the Middlesex Hospital with my friend and old fellow student, Dr. William Cayley, one of its Physicians. I also had the benefit of examining patients in the North-West London Hospital, under the guidance of Dr. Harry Campbell, one of the Physicians. I am afraid that I made a mistake in working so hard, for I became depressed, and went to the Royal Bath Hotel, Bournemouth, on November 23rd, to obtain a little cheerfulness. I found that my old friend, Dr. Arthur Ransome, of Manchester, was living in Bournemouth, and he took me to inspect a number of Sanatoria for the treatment of Tuberculosis. Now comes the most unpleasant part of my history. I don't think that a combination of all the synonymous words in the English language which express stupidity would be too severe to censure me with. Although I had put down my name and paid the fee, I took fright and returned to Preston two days before the examination commenced, intending to go up in 1901, but I could never muster courage to do so. I have very frequently been troubled since 1900 with the reproaches of conscience for my stupidity.

> I never did wrong, but a something within
> Admonished and blamed me the while,
> I never did right, but that something within
> Approved an allured by its smile.

I endeavour to overcome the unpleasant reflection by recalling the distinctions which have been already conferred upon me :—

1. Associate of King's College, London.
2. Esquire of the Order of St. John of Jerusalem.
3. Fellowship of the Royal College of Physicians.
4. Honorary Freedom of the Borough of Preston.

5. Honorary M.A. Degree of the University of Cambridge.
6. Knighthood.

I ought to mention that when I called to have my name entered on the list of candidates for the examination in Medicine at the University of London, in 1900, I was received with kindness and encouragement by Sir H. F. Heath, who was then Assistant Registrar, but who now occupies a very important position on the Board of Education. It is an interesting coincidence that a few years afterwards I had the opportunity of showing a little attention to his sister-in-law when she came to be a teacher of music at the High School for Girls in Winckley Square, as the successor to Miss Easton, the cousin of Dr. Easton, whom I have already mentioned in connection with the Preston Dispensary.

When I began to make inquiries a few weeks after the examination in December, 1900, in reference to the character of it, I found that I should have had no difficulty in passing. I may mention also that after the examination for the Membership of the Royal College of Physicians in 1863, I was commended by Sir George Johnson, one of the examiners, for the excellence of my work.

My second brother, the Rev. Richard Holgate Brown, was Vicar of St. Paul's Church, Staley, near Stalybridge, and an Honorary Canon of Chester Cathedral. He died in 1887 at the age of 55.

My eldest sister died in June, 1904, at the age of 70. She was unmarried.

My second sister was married to Mr. Thomas Moss Shuttleworth in 1858, and she died at Bognor in Sussex, in December, 1919. Up to the time of his death in 1889, he was Clerk of Assize for the Northern Circuit, and his son Arthur is an Associate of the Northern Circuit. Another son, Frederick Gregson Shuttleworth, is Organist and Choirmaster of St. Mary Abbots, Kensington. He was Assistant Organist to Mr. Henry Bird, and succeeded him after twenty-five years' service.

My third sister died at the age of 29, and was not married.

My fourth sister was married in 1864 to Major George Lamont Hobbs, of the 45th Regiment (Sherwood Foresters). He was invalided home from India and died at Netley Hospital. Their son, Major George Lamont Hobbs, 88th Regiment Connaught Rangers, was also invalided home from India and died at the Osborne Convalescent Hospital for Officers in the Army and Navy, in the Isle of Wight. My sister has one daughter, and she and her mother live at Bath.

MATTERS OF GENERAL INTEREST.

RAILWAYS.

IT has fallen to the lot of comparatively few people to live during 85 years of a century which has been more remarkable than any of its predecessors for advance in Art, Literature, and Science; especially in those branches of Science that have resulted in the discovery of inventions and appliances which have added so much to the interest and enjoyment of life. Amongst these I may mention railways, street railways, horse-tramcars, omnibuses, electric tramcars, bicycles, tricycles, motor cycles, motor cars, chars-à-bancs, aeroplanes, the electric telegraph, wireless telegraphy, the telephone, the gramophone, the telautograph, the cinematograph, the X-rays, shorthand writing, typewriting, photography, gas fires, gas cooking appliances, and lighting and heating by electricity. Many of these inventions and appliances cannot be too highly appreciated, but they are apt to be underestimated on account of our familiarity with them. It is often an advantage to lose, or be temporarily deprived of, some of the good things which we enjoy in order that we may the more fully realise their value.

Anyone who has lost or been temporarily deprived of health, the greatest of all blessings, can confirm the truth of this statement. We have all been taught a lesson on this subject by the high price and limited amount of fuel, light, food, and clothing, the inconveniences caused by the railway and coal strike, and by the scarcity or disappearance of domestic servants.

Railway trains and everything associated with them have interested me from my earliest youth, and it is one of the great pleasures of my life to reflect upon the changes which have occurred in the various appliances and arrangements during the period which has intervened between 1838, when the Wigan to Preston line was opened, and 1921. I was Local Medical Officer to the London and North-Western

and Lancashire and Yorkshire Railway Companies from 1873 to 1921, and from 1859 to 1873 I was an assistant to the surgeon who previously held the appointment.

One of the greatest events of the nineteenth century was unquestionably the construction of railways. The Liverpool and Manchester was the first ever used for passenger traffic ; it was opened in 1830. The following were opened at the dates mentioned : London and Birmingham, 1838 ; Liverpool and Preston, 1838 ; Eastern Counties (now the Great Eastern) 1839 ; London and South-Western to Southampton, 1840 ; Great Western, 1841 ; London and Brighton, 1841 ; Edinburgh and Glasgow, 1842 ; and Great Northern, 1850. The Trent Valley Line, by which the journey from London to Stafford was shortened, was opened on June 26th, 1847. Before this passengers from London to Preston were taken round by Coventry, Birmingham and Wolverhampton. The Caledonian (Carlisle to Edinburgh) was opened in 1848. The Preston to Wigan line was opened in 1838, and that to Lancaster in 1840 ; but the railway from Lancaster to Carlisle was not completed until 1846 ; and it was therefore in 1846 that communication between London and Carlisle, by what is known as the Western Route, was established.

At the time of my birth in 1836, there was not a single railway train running into or out of Preston. The first line available for the use of the public was that from Preston to Wigan, and it was opened in 1838. At a time when Blackpool occupies such a prominent position in the estimation of the public it is interesting to recall a few incidents in its early history. The railway to Fleetwood was opened in 1840, but the branches to Lytham and Blackpool were not available until 1846. In an edition of *Bradshaw's Railway Guide* for 1844, which I have the good fortune to possess, there is an intimation that passengers for Lytham and Blackpool must leave the railway carriage at Kirkham and Poulton respectively, and that they would be conveyed to their destinations in omnibuses which met every train. As there were only three trains daily to Fleetwood, and they

ran at 10 a.m., 4-15 p.m. and 7 p.m., an idea may be formed of what a small number of people went to Blackpool in 1844. A short time ago, I read a paragraph in one of the newspapers which said that on a Bank Holiday, or some other special occasion, such as an Aviation Meeting, it is not unusual for the London and North-Western and Lancashire and Yorkshire Railway Companies to convey 100,000 people into Blackpool within a few hours.

The *third-class carriages*, as I remember them at first, were entirely open; they had neither roofs, windows, nor seats, and were called "stand-ups." The *second-class carriages* had roofs, but so close to the head that a tall man could not stand erect. The *first-class carriages* were painted in various colours, and had names on the outside, and, therefore, somewhat resembled the old horse-drawn coaches and were modelled on the old coach pattern.

Carriages are now almost, if not more than, treble the weight they were; their present *weight*, without passengers, is about 30 *tons* each; and their wheels, like those of the engine, are steel tyred. The carriages of the present day are not only much more commodious and comfortable than those of fifty years ago, but many of them are really luxurious. The third-class carriages on the London and North-Western Railway are superior to those which were provided for first-class passengers at the middle of the last century. It is now an everyday occurrence for many persons to breakfast, lunch, dine, and sleep in the train, and thus reduce the time occupied in travelling a long distance to a minimum. Lavatory carriages are freely supplied, and in the event of an urgent necessity for stopping the train, this can easily be accomplished by pulling a brass chain which passes through all the carriages, partially applies the continuous brake, and so attracts the attention of the driver and guard, who, at the safest available point, brings the train to a standstill.

For many years after the London and Birmingham line was opened, the luggage of passengers was carried on the top of the first-class carriages, and it was covered with

waterproof sheeting. A porter had to climb on to the roof of the carriage, and slide the luggage down an inclined plane, which was attached by hooks to a rail on the side of the roof at the upper end, and rested on the ground at the lower. Confusion and delay often arose during the identification of a passenger's luggage.

In the earlier days of railway travelling the guard rode outside on a small unprotected seat at one end of the roof. The brakes were worked from the roof of the carriages, and the guard applied the brake by turning on a hand-screw. Guards are now provided with well-lighted, covered luggage vans, which have padded seats, and apparatus for warming food whilst travelling. I remember that about 1850 or 1851, luggage trains travelling between Preston and Carlisle had three guards—the head goods guard, or brakesman as he was also called, and two assistants. The first rode in a covered van at the end of the train, and was provided at that time, or shortly afterwards, with a stove. The two assistants had to ride on the open waggons without any protection but an overcoat ; and on a frosty night, or when it was raining or blowing or snowing, their exposed position must have been very trying. There are now no assistant brakesmen. When the wooden brake was applied a smell of burning wood was often experienced by passengers, and I remember that on one occasion a gentleman " sniffing up " remarked : " Pyroligneous acid." " Nothing of the sort," replied another passenger, " it's the brake."

When I see the enormous locomotive engines which draw the trains nowadays, I think of the time when they were less than half the size of those now running.

Moreover, they were so deficient in power that when a train was heavier than usual they had a difficulty in starting. Under these circumstances I have seen the porters called upon to push at the sides of the train to help the engine to move. On a branch line which established a communication between Preston and Longridge, it occasionally happened that at one of the intermediate stations the passengers were also requested to get out and push.

The new engines now running are about 1,005 horse power, and with the tender weigh about 102 tons 15 cwts. The old ones running about 40 years ago were about 300 horse power each, and with the tender weighed about 15 tons. The tenders of the old engines were able to hold about 500 gallons of water; those now in use will contain 3,000 gallons. The consumption of coal, in the earlier engines, was about 22lb. per mile; in the modern ones it is about 50lb. per mile, the amount varying with the weight of the trains which have to be drawn.

Engines with express trains used to run about 30 miles an hour. It took them three hours to go from Preston to Carlisle (90 miles). Now the express trains, leaving Preston at 10-55 a.m. and 1-50 p.m., accomplish the journey in 1 hour and 42 minutes. Engines, whilst going at full speed, gain half an hour or more on the road through taking up water from one or more long troughs laid between the rails at certain parts of the route, a pipe under the tender is lowered into the water as it is passed over. The old engines had to stop three times on the journey to Carlisle for water, and the time lost in slackening, stopping, and starting amounted in each instance to about 10 minutes.

The diameter of the driving wheels of many of the present engines is 6ft. 6in., about a foot more than that of the old engines. Two standards, 6ft. with six wheels coupled used where the gradients are severe, and 6ft. 6in. with four wheels coupled, better adapted for the more level districts.

The life of a modern engine is about 20 years, and it is computed that in such a period of time it will run 800,000 miles, or, say, 40,000 miles a year.

Brakes were originally of wood; subsequently in the form of iron blocks worked by friction wheels and chains. Now all trains are supplied with a vacuum brake, which is under the control of the engine driver.

Engine drivers and firemen in the earliest days of railways had no protection against the severities of the weather, except that afforded by overcoats, mufflers for the

neck, and the kind of waterproof headgear worn by sailors. Now the portion of the engine, called the footplate, on which they stand, is covered in both at the sides and at the front, where it is glazed with thick glass, and it has a roof also. In hot weather the temperature of the "cab," as it is called, is rather trying, ; but in winter the protection is much appreciated.

In wet and frosty weather the wheels of the engine are apt to revolve rapidly without moving the train, and in order to prevent this slipping, as it is called, it was usual to sand the rails for a short distance from a station. When I first began to watch railway trains in my early boyhood, the fireman, carrying a shovelful of fine, dry sand, sprinkled it on the rails before the train started. The next method adopted, and it was a very dangerous one, consisted of letting the fireman sit on the buffer plank at the front of the engine and drop sand on the line from that position. It was considered a great improvement when the sand was stored in a box, placed about midway between the footplate and chimney, and dropped on the line by this receptacle by the fireman who, in order to perform this function, had to walk along the side of the engine to reach the box. The method at present adopted consists in releasing sand from the box by a mechanical appliance which is worked from the footplate, and also by means of steam sanding apparatus ; thus the dangers associated with the earlier methods are avoided. I well remember being called up in the night to assist at the amputation of the front portion of the foot of one of the Crewe apprentices. In walking on the flat ledge, which there is on each side of an engine, to reach the box for the purpose of sanding the rail, he caught his foot between the spokes of the 7ft. single driving wheel, and sustained such a severe injury that it was necessary to amputate part of his foot.

The platforms were only slightly above the level of the railway, so that in climbing into the carriages invalids or stout people required a stepladder or the assistance of a porter.

Rails are now made of steel ; they are about 60ft. long and contain 95lb. of steel to the yard. Roughly speaking, each length weighs a ton. Originally they were about 15ft. in length.

Chairs, instead of being, as they once were, narrow and about 15lb. in weight, are now broad at the base and weigh about 46lb. each.

Fishplates fasten the ends of adjoining rails together, and with the chairs give great steadiness to the rails.

The signalling was made by the exhibition of red, green, and white flags during the day, and by red, green, and white lights at night. The signalman, when disengaged, retreated into a little sentry-box, from which he emerged when it was necessary to show a flag or lamp, or to move a lever which altered the points. The signal-box, with its multiplicity of levers, is now a prominent object on every railway ; and the ease with which the signals, both near and distant, are controlled, is one of the triumphs of mechanics. Not less so is the communication between the signalmen in the different boxes which has been established by the use of the telephone.

A great advance was made in connection with railways and the safety of the public, when it was decided to institute a medical examination of all candidates for employment at the earliest convenient opportunity after their names, ages, and other particulars have been ascertained. Up to a certain point the details of the examination are the same for all. Thus they must be free from hernia, varicose veins, varicocele and piles ; the heart, lungs, and other viscera must be healthy ; they must have undergone vaccination, and they must have good eyesight. The following are the instructions issued to the medical officers :—

No candidate for employment in the company's service in any capacity involving manual labour may be accepted when such candidate is found by the examining doctor to be suffering from hernia or varicose veins, or other physical defects which would render him prone to sustain injury in the course of his work or to aggravate any injury so received.

ClassA (Passenger porters, engine drivers and cleaners, platelayers, seamen, or any other occupation which is directly connected with the

outdoor working of the traffic) :—To be examined for colour-sense by Holmgren's method. Form-vision to be tested by Snellen's types. Each eye must be examined separately, and must have, without glasses, a minimum acuteness of two-thirds of the normal (v. $\frac{20}{30}$ Snellen in feet, or $\frac{6}{9}$ Snellen in metres). Squint or any chronic disease of eyes or eyelids must disqualify.

Class B (Goods porters, carmen, horse drivers, and kindred duties not directly connected with the out-door working of the line) :—Colour examination not required. Form vision as in Class A.

Class C (Clerks, time and storekeepers, messengers, and artisans and labourers not included in Classes A and B) :—Candidates in this Class are required to possess such a degree of sight as will fit them, with or without glasses, for office work, or for the duties of the various grades mentioned.

Bradshaw of 1845 gives the following time-table :—

Preston to Fleetwood : 8¼ and 11 a.m. and 5.10 p.m. ; and on Monday, Wednesday, Thursday and Saturday at 7½ p.m.

Fleetwood to Preston, Liverpool, Manchester, London, &c. :—8¼ a.m. and 3¾ p.m.

SUNDAYS.

Preston to Fleetwood :—9 a.m.

Fleetwood to Preston, Liverpool, Manchester, London, &c. :—4 p.m.

Bradshaw for 1844 tells us that during the 24 hours five trains ran between Preston and Lancaster. *Bradshaw* for July, 1910, states that during a corresponding period there are 40. Of these, however, about 10 do not stop at Lancaster, but run through to Carlisle, either direct or with only a few stops. In 1844 there were three trains from Preston to London ; they departed at 2-57 a.m., 9-45 a.m. and 7-28 p.m. and arrived in London at 1-30, 9-0 and 5-32 respectively. On Sundays only the mail trains ran, namely, the 2-57 a.m. and the 7-28 p.m. The times of departure from London to Preston were 8-45 a.m., 10 a.m. and 8-30 p.m. Therefore, as will be seen by the following table, the time occupied from London to Preston was about 11 hours :—

2-57 to 1-30=10 hours, 33 minutes.
9-45 to 9-0 =11 hours, 15 minutes.
7-28 to 5-32=10 hours, 4 minutes.

Until the Trent Valley line between Stafford and Rugby was opened in 1847, passengers from Preston to London had to travel via Birmingham.

In July, 1910, about 20 passenger trains were running between Preston and London during the 24 hours ; the quickest of these accomplishes the journey in four hours and eleven minutes.

I have not been able to ascertain the fares between Preston and London in 1844, but I find that between Liverpool and London they were: "By mail carriages, four inside," 58s. 6d.; and "By mail carriages, six inside," 54s. 6d. In 1914 the fares between Preston and London were :—

Single.				Return.			
1st.	2nd.	3rd.	Parl.	1st.	2nd.	3rd.	Parl.
29s. 6d.	19s. 2d.	...	17s. 5d.	57s. 6d.	38s. 4d.	...	34s. 10d.

I will conclude my remarks with amusing incidents which occurred on two short branch lines in the neighbourhood of Preston :—

(1) On the Garstang and Knott End Railway the train could be stopped at any point where a passenger, who wished to travel by it, indicated his wish by holding up his hand. One day the wife of a farmer, coming across a field in the direction of the train, was observed by the engine driver to be giving the recognised signal, but when the train came to a standstill, instead of entering it, she simply asked the guard if he could give her change for half a crown.

(2) On the Preston and Longridge line, shortly after it was opened, a boy who was riding in the train lost his cap. The attention of the guard was attracted by the loud shouting; the train was stopped, and the cap recovered.

The following remarkable accident occurred to a Preston engine driver a few days ago :—

He was in charge of the seven o'clock train from Carlisle to the South, and just after passing Oxenholme, the glass of one of the look-outs was shattered and the driver cut about the head and face. Subsequently the dead body of an owl was picked up in the cab of the engine. The train was travelling at more than 60 miles an hour when it struck the bird, which was probably flying in the opposite direction, and the velocity at the moment of contact was so great that the owl was literally forced through the thick glass of the look-out.

TRANSPORT.

I cannot claim to remember the time when people chiefly travelled from place to place on horseback, and when goods were conveyed on what are called pack-horses, but I have lived to see many remarkable changes in the method of travelling.

I have witnessed the discontinuance of stage coaches and sedan chairs, the disuse of many kinds of horse-drawn carriages, the introduction of bicycles, tricycles, motor cars, chars-à-bancs, electrical tramcars, railway trains travelling at the rate of a mile a minute, and lastly the revival of aerial navigation. The possibilities associated with flying in the air, and the revolutions to which they will probably give rise, are causing much anxiety as well as wonderment as to what may happen. I remember a livery stable keeper named Harding, who commenced business in Preston with one horse and one cab ; I observed the business increase until Harding and Co. had 400 horses and innumerable conveyances of all sizes and shapes, and I have lived to see the dissolution of Harding and Co. and the supplanting of the firm by motor car companies.

I went to Blackpool and Southport (some time between 1890 and 1892) to see motor cars in their experimental stage. As in the case of many other objects, their development up to their present point of apparent perfection is startling. Seventy years ago, medical men who could afford a carriage of any kind visited their patients in a gig—a light carriage with one pair of wheels and drawn by one horse with a seat for two persons side by side. This was succeeded by an open four-wheeled carriage drawn by one or two horses and called a phaeton. Other carriages gradually came into use, of which the following are the principal varieties :— The hansom, a two-wheeled cab with a driver's seat behind ; cab, a covered carriage drawn by one horse ; brougham, a covered carriage drawn by one or two horses and with internal fittings superior to those of the cab. The duobus, a covered carriage on two wheels resembling a cottage piano, the keyboard representing the driver's seat and the interior

fitted with two seats on which the occupants sat sideways, face to face.

Sedan chairs derived their name from Sedan, in France, where they were first made. A Sedan chair was a portable chair or covered vehicle borne on poles, carried by two porters, one in front and one behind. The bearers whom I remember were elderly men, and it was a favourite piece of amusement on the part of mischievous boys to prick with a pin the calves of the porter who faced the back of the Sedan chair. There used to be two Sedan chairs in Preston, one Whig and the other Tory, and no Tory lady would have been seen in the Wig Sedan for anything. One of these chairs was kept in a passage between two houses in Winckley Square, now numbered 29 and 30, and only two doors from the house in which I am now living. The other was always to be found, when not in use, in a passage in Winckley Street, between the Lancashire and Yorkshire Bank and Buck and Dickson's office. It is said that Sedan chairs were introduced into Preston at the Guild of 1662 by R. Langton, one of the bailiffs. People used to ride in them to Church on Sundays. They were carried in them to balls and private parties, and little children, when they died, were taken in them to churchyards to be buried, the coffin being put through the windows and resting horizontally on the lower parts thereof, while the parents sat within and on each side.

Bath carriages were first locally brought under the notice of Prestonians on August 25th, 1821. They were like the cabs of which only a few are now to be seen in the town or neighbourhood.

On June 1st, 1868, the late Mr. W. Harding put upon the streets of Preston the first "Hansom," and the late Dr. Howitt, who died in 1873, was the first person who rode in it. St. Walburgh's Church was built from designs prepared by Mr. Hansom, the well-known architect. He also invented the Hansom cab. The beautiful spire of St. Walburgh's, which impresses travellers on the L. and N.-W. and L and Y. Railways, is 314ft. 6in. high.

POSTAL ARRANGEMENTS AND POLICE.

Most people from early youth to old age, whatever position in life they occupy, are interested in the arrival of the postman, but the postal arrangements, until the uniform penny rate throughout the Kingdom was adopted in January, 1840, four years after my birth, were very different from what they are now. Letter writing was then the luxury of the rich, the cost of postage being prohibitive to the poor. The cost of conveying a letter from London to Edinburgh was then a little more than a shilling, and the receiver of the letter and not the sender had to pay the postage. The charge varied with the weight of the letter and the distance which it had to be forwarded. I remember when there was only one postman in Preston, and his name was Johnson. There are now 138. I remember when the Post Office was a small cottage on the right hand side of Church Street, not far from this side of Manchester Road, and when the post-mistress was Miss Hardman.

I remember when there were only 10 policemen; now there are 120. The Police Station was in Avenham Street, on the left hand side, going from Church Street.

THE TELEPHONE.

The value of the telephone can be best appreciated by supposing the privilege of using it to be withdrawn. The first successful exhibition of the telephone was made in London on July 14th, 1877. The telephone is a very important aid to a medical man in the exercise of his profession. With it he can make many of his appointments both at the hospital and in his private practice, he can give instructions to his house surgeons and others, he can send for a taxi cab, and when detained at an operation or by other forms of engagement and unable to return home at the time appointed for his consultation hour, he is able to relieve the anxiety of the patients who are waiting to see him by explaining to his male or female servant the cause of his detention. There is another use of the telephone which I can best illustrate by giving you an account of a case which was recorded in

some of the newspapers. The child of a young married lady was taken ill in the night with symptoms which she thought were those of croup, a disease of which she had had no previous experience. She at once telephoned to her medical man, and asked him what she ought to do. His reply was, "Hold Johnny up to the telephone and let him cough." When this had been done, the doctor told the lady that Johnny was not suffering from croup, that she might put him in bed again and keep him there until he called to see him in the morning.

PHOTOGRAPHY.

The progress which has been made in connection with the art and practice of photography, and the pleasure which it has given to mankind in all parts of the world, place it high on the list of inventions and appliances which have added so much to the interest and enjoyment of life. Although for more than 30 years it had been known that pictures might be taken by the rays of the sun acting upon chloride of silver, it was not until 1839 that the process for preventing the pictures from fading away was discovered by Daguerre, a Frenchman. It is instructive to consider how photography nowadays is associated with the microscope, telescope, magic lantern, X-ray apparatus, the cinematograph, the stereoscope, and other appliances. Remarkable developments have also been made in the application of photography to the purposes of newspaper illustration, the cheapness of the processes of reproduction having given rise to a large number of illustrated periodicals. By the photographic process, too, we are enabled to become the possessor at a small expenditure of facsimile reproductions of famous pictures. As an aid to lectures in various subjects, both scientific and non-scientific, photography is invaluable, and it is daily becoming more so. What a contrast there is between an up-to-date lecture on a visit to America or the Holy Land and such as was delivered 50 years ago! When we are inviting friends who live at a distance to visit Preston, we can purchase for sixpence or a shilling and send to them

a book of views taken by photography of the principal streets, buildings and parks of our good old town, and when we go to other countries, cities, and towns, we can bring home with us photographs of what we have seen, and recall many pleasant memories and associations at our will. If an old inhabitant like myself wishes to renew his acquaintance with some of Preston's former citizens, he can go to the Harris Free Library and see photographs of those who were Mayors, Aldermen, and Councillors at the Guilds of 1862, 1882, and 1902. In 1853 I became the proud possessor of a camera. It is interesting to compare the easy way in which a snapshot can now be obtained with the complicated process which was required in 1853. The successive steps at that time were :—(1) Coating a glass plate with collodion ; (2) Immersing the plate in a nitrate of silver bath in a dark room ; (3) Exposing the plate in a camera ; (4) Pouring over the plate a developing solution containing sulphate of iron ; (5) Immersing it in a solution of hyposulphide of soda ; (6) Washing the plate freely with water ; (7) Coating the back of the plate with black varnish.

FUNERALS AND FUNERAL CARDS.

In the early part of my career it was the custom for those invited to a funeral to wear a top hat and a silk hat-band, and shoulder scarf, and, on the Sunday morning following the interment, to appear at church wearing the scarf only. It was also usual to send after the funeral, not only to those who had attended it, but to other friends of the deceased's relatives, a memorial card and a small piece of sponge cake. Most people destroyed the card and gave the cake to some child, but a patient of mine, instead of doing so, pasted each card in a ledger. One day when I called to see him, I found him busily engaged with his self-imposed task. On my entering the room, he looked up and said, "Oh ! Is that you ? I have not got you here yet, but I shall be very glad to put your card amongst the others, if I survive you." Medical men and others, when they had made a small collection of these silk articles, returned them

to the draper who had supplied them, and received 15s. for the pair. As they were generally in an undamaged condition the same two articles appeared at many different funerals, and were a profitable source of revenue for a draper who had a good reputation for his funeral arrangements. The hat-band was a very uncomfortable appliance, for the upper portion of it was as deep as the vertical measurement of the hat, and the lower or streamer portion being down the back, in some cases caused a sensation as if someone was trying to pull the hat off from behind. The scarf rested on the shoulder and hung down the opposite side of the body.

THINGS MORE IMMEDIATELY CONNECTED WITH MY OWN PROFESSION.

CHLOROFORM.

WHEN I became a student at King's College Hospital in 1855, anæsthetics had not been very long in general use. It was only in 1846 that ether began to be employed, and chloroform was used for the first time in a surgical operation in the Edinburgh Royal Infirmary on November 15th, 1847. Sir William Furgusson was then at the height of his fame. He had been appointed one of the surgeons to King's College Hospital in 1840, and as chloroform was not used until 1847, he had the experience of performing operations before the introduction of anæsthetics, and comparing it with that of operating under anæsthesia. He could tell us how patients, narcotised by opium or intoxicated with alcohol and uttering piercing screams, and sometimes startling oaths, were forcibly held down by strong assistants. He could contrast the agony, which, before the introduction of ether and chloroform, people had to undergo, both in anticipation and during the performance of surgical operations, with the comparative ease of mind with which such proceedings can now be contemplated. Sir J. Y. Simpson made the first experiment with chloroform in his own house on November 4th, 1847. Before chloroform was suggested to him by Waldie, a Liverpool chemist, Simpson personally experimented with several chemical liquids in the hope of finding something less disagreeable and persistent in smell than ether. The dream of his life had been to soothe the pain of his patients, and before he realised his dream, he had been almost driven by the painful scenes which he witnessed in the operating theatre, to abandon medicine for the law. The way in which chloroform came into use is very interest-

ing. It is said that in October, 1847, Waldie, a chemist of Liverpool, was visiting Edinburgh, and in a conversation with Professor Simpson, recommended him to try chloroform as an anæsthetic, and promised to make and send him some on his return to Liverpool. In a letter written by Professor Simpson to Waldie, he thus describes the event :—

> I am sure you will be delighted to know part of the result of our hasty conversation. I had the chloroform in the house several days before trying it, as after seeing it, such a volatile like liquid, I despaired of it and went on dreaming about others. The first night I took it, Dr. Duncan, Dr. Keith and I all took it simultaneously, and were all under the table in a minute or two.

Professor Miller, who was a neighbour of Simpson's, used to come every morning to see if the experimenters had survived! He describes how, after a weary day's labour, Simpson and his assistants sat down and inhaled various drugs out of tumblers, as was their custom. Chloroform was searched for, and found beneath a heap of waste paper, and with each tumbler newly charged, the inhalers resumed their occupation. A moment more all was quiet; then a crash. On awakening, Simpson's first impression was mental. "This is far better and stronger than ether," he said to himself. His next was that he was prostrate on the floor, and that among the friends about him, there was both confusion and alarm. Dr. Duncan he saw snoring heavily, and Dr. Keith kicking violently at the table above him. They made several more trials of it on that eventful evening, and were so satisfied with the results that the festivities did not terminate until a late hour. In the interval between the 4th and the 15th, Dr. Simpson administered chloroform to about 50 people of whom my friend, the late Dr. Watkins, of Newton-le-Willows, was one. The first child born under the influence of chloroform was the daughter of a medical friend of Simpson's, and she was christened "Anæsthesia," to celebrate the circumstances of her birth. About the 7th of November, 1847, it had been arranged that Simpson should administer the new anæsthetic chloroform to a patient who was about to be operated upon, but owing to some circumstances or other, he was unable to be present. The

operation went on without either him or the anæsthesia, and the patient died on the first incision of the knife. Simpson's absence was providential, for it saved the reputation of chloroform at the outset.

The first patient ever operated upon under the influence of chloroform was said to be a boy four or five years old, who could only speak Gaelic. He seemed frightened when the sprinkled handkerchief was held before his face, but fell asleep after a few inspirations. The boy was suffering from necrosis of one of the bones of the fore-arm, and Dr. Simpson thus described his experience in this historic case.

> During the operation and the subsequent examination of the wound of the finger, not the slightest evidence of the suffering of pain was given. He still slept on soundly, and was carried back to his ward in that state. Half an hour afterwards he was found in bed like a child newly awakened from a refreshing sleep, with a clear, merry eye and placid expression of countenance, wholly unlike what is found to obtain after ordinary etherisation.

Another patient, a soldier, was so delighted with the effect, that on awaking after the operation, he is said to have seized the sponge with which the chloroform had been administered, and thrusting it into his mouth, again resumed inhalation more vigorously than ever.

Simpson was strongly opposed on almost all sides. The public Press charged him with putting a premium on crime by his discoveries. Some said that assassination would become of daily occurrence, and that chloroform would be applied to every criminal purpose. Others affirmed that the inhalation of chloroform produced so strong a resemblance to death that victims would be daily buried alive. The strongest opposition of all came from the religious public, who declared that it was in direct opposition to Scripture, "to avoid one part of the primæval curse on woman," and from pulpit after pulpit it was denounced as impious. Simpson wrote some strong pamphlets in defence of the blessing which he had brought into use.

> My opponents forget, he said, the twenty-first verse of the second chapter of Genesis. There is the record of the first surgical operation ever performed, and that text proves that the Maker of the Universe, before he took the rib from Adam's side, caused a deep sleep to fall on Adam.

Simpson was on the winning side, and the greatest battle in science ever fought against human suffering was won. Chloroform was administered to Queen Victoria, practitioner after practitioner adopted it, and Simpson lived to see the blessing acknowledged, and its almost universal use.

CHLOROFORM.

The Scotch School maintain that the respiration is the first to fail. Others say that the heart stops first.

ETHER.

In November, 1846, a great stir was occasioned by the publication of a letter in the public Press, written from Boston in the United States, regarding the discovery made by Dr. Jackson and Dr. Morton of the beneficial use of ether in surgical operations. The writer of the letter said :—

> I found on my arrival here, a new thing in the medical world, or rather the application of an old thing, of which I think you will like to hear. It is a mode of rendering patients insensible to the pain of surgical operations by the inhalation of the vapour of the strongest sulphuric ether. They are thrown into a state nearly resembling that of complete intoxication from ardent spirits, or of narcotism from opium. This state continues but a few minutes—five to ten—but during it the patient is insensible to pain. A thigh has been amputated, a breast extirpated, and teeth drawn without the slightest suffering. The number of operations of various kinds, but especially those in dentistry, has been very considerable, and I believe but few persons resist the influence of the agent.

One of the first to make use of sulphuric ether was Professor J. Y. Simpson, who succeeded in introducing chloroform, a fluid discovered and described at nearly the same time by Liebig and Soubeiran. When Morton, an American surgeon, removed a congenital vascular tumour in the neck from a young man named Abbatt, the operation was completed in about five minutes without a groan from the patient. A Dr. Bigelow, who was present, said to a friend whom he met later in the day, "I have seen something to-day which will go round the world." A private letter from Dr. Bigelow to Dr. Francis Boote, of Gower Street, London, carried the first news to England, and it was communicated to the medical profession in London

on December 17th, 1846. Two days later, Mr. James Robinson, a dentist, of Gower Street, performed the first dental operation in England, the patient being a Miss Lonsdale, and the operation, the extraction of a firm molar tooth. The name of this celebrated dentist recalls to my mind an incident which occurred to myself. On July 17th, 1853, I travelled to London by a night train to undergo a preliminary examination in Classics and Mathematics at the Apothecaries Hall. During the journey I suffered great pain from a decayed molar tooth, and an abscess at its root. Shortly after my arrival I was taken by a surgeon named Thomas Carr Jackson, who lived at the corner of Belgrave Street, King's Cross New Road, now called Euston Road, to the house of the above-mentioned Mr. James Robinson. Mr. Jackson then administered the chloroform, and Mr. Robinson extracted the tooth. I remember that as I was regaining consciousness, Mr. Robinson patted me on the cheek, and said, "Now, Sir, you shall come again another day and have the tooth out," and that after feeling at my gums with the tip of my tongue, I said, "But it is out." I was perfectly unconscious during the extraction, and was able to walk away from Gower Street in a few minutes without feeling sickness, dizziness, or any discomfort whatever, and I am thankful to say that I was successful in passing my examination at the Apothecaries Hall.

On December 21st, 1846, the first surgical operation under ether was performed by Robert Liston, in University College Hospital, London. In the operating theatre, thronged with students, were the late Sir John Erichsen, Lord Lister, who introduced the aseptic method of treatment, and many other famous surgeons. Before the patient was brought in, the Anæsthetist asked the students who crowded the benches in the theatre from floor to ceiling, for some volunteer who would submit himself to be anæsthetised. A young man named Shelbrake, of very powerful build and a good boxer, at once offered to take the new anæsthetic, and came into the arena. He lay on the table, and the Anæsthetist proceeded to administer the ether. After the administration

PRESTON ROYAL INFIRMARY—FROM DEEPDALE ROAD

had proceeded half a minute, the subject of the experiment suddenly sprang up and felled the Anæsthetist with a blow, and sweeping aside the assistants in the arena, sprang, shouting, up the rows or tiers of benches, scattering the students, who fell like sheep before a dog. He fell at the top bench, where he was seized and held down until he regained his senses. The whole scene hardly occupied a minute. Liston's patient was a middle aged man suffering from malignant disease of the skin and tissues of the calf of the leg, for which amputation of the thigh was deemed necessary. He passed easily into complete insensibility, and Liston rapidly removed the thigh, the cutting operation being declared to have lasted only 32 seconds. In a few moments the patient completely recovered consciousness, and apparently did not know that the limb was off. When the towel was removed from the uplifted stump, so that he could see it, he burst into tears and fell back on his pillow. Both patient and surgeon were much affected, and the scene in the theatre was most impressive. All appeared to see what an incalculable boon was in store for the human race, and Liston could scarcely command his voice sufficiently to speak. The practice of using ether was soon followed in other hospitals. So rapidly indeed did it extend from one centre to another that by the end of April, 1847, the use of the new anæsthetic may be said to have become general in all operation cases. The value of ether in midwifery practice still remained to be proved, and Sir James Simpson was the first to test its use in this department.

ETHER.

It is generally considered to be a safer anæsthetic than chloroform, in that it is a cardiac stimulant.

A FEW PARTICULARS ABOUT CRILE'S METHOD.

Crile is a distinguished American surgeon, of whom Sir B. Moyniham said, in his address to the British Medical Association at Brighton, last year :—

"To the great discoveries of ether by Morton and of the aseptic method of treatment by Lister, this of Crile

seems to be the fitting completion. I have used the method for many months, and it has added a pleasure to my work which is really immeasurable."

The field of operation may be temporarily disconnected from the brain, not only at the time of operation but for periods of from one to five days subsequently. The operation is then conducted in an area which for the time being does not belong to the patient, which he cannot reach by any impulse directed towards it, and which can be dealt with as the surgeon wishes without the patient having any power of receiving impressions from it. The fears which hover round the last hour before an operation are greatly modified by the administration of a small dose of morphine with scopolamine. A happy frame of mind is thereby induced, and very little nitrous oxide gas is required to put the patient soundly to sleep. The memory of the conveyance of the patient to the operating theatre, and of the administration of the anæsthetic, are often abolished by these measures.

Sir B. Moyniham has given up using chloroform as an anæsthetic altogether.

ANÆSTHESIA (GENERAL AND LOCAL).

A good illustration of the application of science to the development of new methods and the improvement of old ones is found in connection with anæsthesia, for example, in the method of *producing insensibility in a small part of the body only, whilst the patient still remains conscious,* and also in producing insensibility *in a more extensive part of the body* as in spinal analgesia. The duration of the insensibility required and the size or extent of the area to be anæsthetised are important considerations in the selection of the most suitable anæsthetising agents. Where the operation is a short one, such as the extraction of a tooth, or the removal of a toe nail, the edge of which is growing into the flesh, or the opening of an abscess, or the forcible bending of a stiff joint, an anæsthetic whose effects are of short duration is of great value. This is also the case when

the condition of the heart, lungs or kidneys is unsatisfactory, and ether and chloroform are regarded as unsuitable. Other agents besides ether and chloroform, administered by inhalation, are now much used for the production of anæsthesia, especially nitrous oxide gas, A.C.E. mixture, and chloride of ethyl.

Nitrous Oxide Gas.

Nitrous oxide gas was suggested by Sir Humphrey Davy in 1799 as a means of rendering patients unconscious during surgical operations, but as then employed it was so uncertain in its action that no great benefit was derived from the knowledge thus acquired, and many years elapsed before it came into extensive use.

Nitrous oxide is most commonly used in dental work, or for short operations such as bending a stiff joint and breaking down adhesions, the removal of a toe nail which is growing into the flesh, or the opening of an abscess, or the removal of adenoids. It is also sometimes employed in conjunction with ether, the patient first being anæsthetised with gas and the condition maintained by ether.

A.C.E. Mixture.

To avoid the depressing effects of chloroform the A.C.E. mixture, consisting of alcohol, chloroform and ether, blended in the proportion of one, two, and three parts respectively, has been used.

One of my fellow students at King's College, named Charles Moss, after he became a qualified practitioner, devoted himself exclusively to the administration of anæsthetics. In the obituary notice of him which appeared in the *British Medical Journal*, it was stated that during the whole of his experience he never had a death from anæsthetics, and that he attributed this good fortune to restricting himself entirely to the use of the mixture of alcohol, chloroform and ether, and never employing either chloroform or ether alone. My own experience has been much more limited than that of Charles Moss, but I have found that, although some patients were easily anæsthetised

with the A.C.E. mixture, there were others who could not be rendered unconscious without the aid of chloroform or ether.

Ethyl Chloride.

Ethyl chloride during recent years has been introduced as a general anæsthetic with excellent results. It is used for short operations on the mouth or nose, *e.g.*, extraction of teeth or the removal of adenoids, also where a single dose is sufficient for the purpose, such as opening an abscess, reducing fractures and dislocations and for inducing anæsthesia which can be maintained by ether in prolonged operations. Its utility is limited by its extremely volatile nature and by the method which must be employed in its administration. Anæsthesia is indeed very rapid, and recovery is equally rapid, but is rather apt to be followed be sickness and depression. Another use for this drug is as a preliminary to the use of ether or the A.C.E. mixture.

The agents for producing local anæsthesia are (1) in the case of mucous membrane, such as the interior of the nose, a solution of cocaine applied in a plug of lint or cotton wool; (2) a freezing mixture of ice and salt; and (3) spraying with ether or ethyl chloride.

Local anæsthesia may be produced in several ways: (1) By temporarily paralysing the sensitive nerve endings in the immediate neighbourhood of the part to be operated upon, either by freezing, or the application, or the injection into the surrounding tissues of certain chemical substances which will have that effect (local analgesia); (2) By temporarily suspending the conductivity of the main nerve trunks supplying the affected areas by injecting into, or around these nerves, chemical substances similar to those used in the former method (spinal and regional analgesia). In neither of these methods is the patient rendered unconscious.

The chemical substances employed for producing local anæsthesia are, with one exception, all derived from or allied to cocaine. Mucous membrane are readily anæsthetised by applying a five or 10 per cent. solution to them for about

five or 10 minutes, the insensibility lasting about the same time.

In dealing with skin or deeper tissues, hypodermic injections of the drug are relied on, the anæsthesia following the course of the peripheral nerves. The action of cocaine is supposed to depend partly on the anæmic condition of the affected tissues induced by arterial contraction, and partly on paralysis of the termination of the sensory nerves. The circulation can also be controlled to some extent by adding a few drops of 1 in 1000 adrenalin solution to each injection of the alkaloid. In making use of cocaine, it must be remembered that cocaine has a distinctly depressing influence upon the heart, and hence more than half a grain should never be employed. Recent experience with the use of cocaine has demonstrated the fact that equally satisfactory results are obtained by injecting larger quantities of much more dilute solutions (one or two per cent.) beneath, as well as all round the site of the operation. (Schlirchs' infiltration method).

It has been found that many of the allies and derivatives of cocaine are equally efficacious and much less likely to give rise to toxic symptoms. Of these substitutes the best known are eucaine, stovaine and novocain. There are no toxic effects associated with the solution used, and as much as seven ounces may be employed in order to infiltrate the tissues. If allowed to act for 30 or 40 minutes, the parts are found to be not only anæsthetic, but also practically bloodless. Operations of gravity can be performed without pain, including such conditions as strangulated hernia, intestinal obstructions, tracheotomy, thyroidectomy, when a general anæsthetic may be undesirable. *Local anæsthesia* is also produced by *freezing the part, either by the application of ice and salt, or by ether spray, or with ethyl chloride.* The rapid evaporation from the surface leads to the freezing of the skin, which becomes of a dead white colour. The anæsthesia produced is of a very fugitive nature, and a certain amount of pain may be associated with the thawing process, but less than that caused by the ether spray. Of

late years considerable success appears to have attended the use of *a mixture of quinine and urea*, one per cent. of the combined drugs, which is absolutely non-toxic in any quantity, but is rather apt to produce undue effusion.

For the *production of regional analgesia*, must not only the nerve supply of the part be known, but one must also be acquainted with the exact points of emergence of the main nerve trunks from the deep fascia. *Spinal analgesia* is a condition which results from the introduction within the spinal membranes of some substance which acts upon the nerve centres or roots, and produces insensitiveness to pain in the regions supplied by them. At first cocaine was supplied for this purpose, but the after effects were so troublesome that it had to be given up, and the substance now most generally utilised is *stovaine*. Analgesia usually develops in from five to 12 minutes, and often shows itself in the perineum before appearing in the feet. Gradually it extends over the whole lower extremity and *may reach to the umbilicus or a little higher*. It is accompanied by motor paralysis and loss of the reflexes, but the patient may be conscious of ordinary tactile sensations. A certain proportion of failures will be noted, and at present it is impossible to explain their occurrence. When the injection is successful the patient lies quietly during the operation with complete muscular relaxation, and *can engage in conversation, smoke a cigarette, or read a newspaper*. At the present time the general opinion as to this procedure is that, whilst in suitable cases *it may be employed for operations below the umbilicus, when a general anæsthetic is not desirable*, yet as a routine method of inducing anæsthesia it has slight advantages over the ordinary plan. It is not always certain : the injection is not always painless ; the after-results are sometimes unpleasant ; the patient is not protected from nervous shock and apprehension during the operation ; and the question of late nervous sequelœ still remains to be decided. On the whole its employment may be advised when a general anæsthetic is undesirable owing to the *condition of the patient's heart, lungs, kidneys, etc., when*

diabetes is present in an aggravated form; when the surgeon is shorthanded; and when very complete relaxation is required, as on dealing with fractures. *The absence of struggling* during and after the administration of a general anæsthetic makes it particularly desirable in the last of these conditions.

THE ASEPTIC METHOD OF TREATMENT.

Lord Lister published his first announcement in the *British Medical Journal* in 1867, vol. 2, page 246. The title is "On the Antiseptic Principle in the Practice of Surgery," and it has undergone many changes since that date, but at the present time it really consists in performing operations and dressing wounds with perfectly clean hands, clean instruments, and clean surroundings. The overwhelming evidence of the incalculable benefits which have resulted to mankind from the practice of it emphasises the assertion that "cleanliness is next to godliness." As a result of the aseptic method of treatment, the number of operations performed for the cure of disease has increased enormously, and the rates of mortality which, in some cases, were scarcely less than fifty per cent., have been reduced to as low a point as one per cent. Many diseases which were previously beyond the reach of treatment are now easily cured by an operation, and, therefore, an inestimable benefit had been conferred on mankind. The use of chloroform and other anæsthetics, by removing the fears and dangers attendant upon pain, led to a great increase in the number and complexity of operations, but the mortality following some of them was so great that they had to be abandoned. An operation called "ovariotomy" was one of these, but since the introduction of the antiseptic, or aseptic treatment, as it is now called, it has been undertaken again, and performed with such remarkably successful results as to make it clear that the aseptic method was the one thing needful to complete the usefulness of chloroform. The number of females who have not only been rescued from certain death by the operation of ovariotomy, but have been restored in the course

of a few weeks to perfect health, is one of the most startling facts in the history of operative surgery.

It is very interesting to read some remarks which Sir Frederick Treves made in 1897, and to compare them with the state of affairs at the present time :—

> Sixty years ago the operating room was the dirtiest room in the hospital. The surgeon operated in the dirtiest coat in his profession, a coat stiff with blood and animal filth. He was as proud of his blood-stained rag as a peer of ancient lineage may be of his faded ceremonial robes.

As most people are now aware an up-to-date operating theatre is an ideal of the most perfect cleanliness. The floor, walls, and roof are covered with glazed tiles, which can be washed with the greatest ease; there are no angles in which dust can accumulate, and there are the most complete arrangements for washing the hands and sterilising the instruments by boiling them. There is a separate room for the sterilisation of the dressings, the basins, and other utensils, and for boiling the water. There is a room where the patient is anæsthetised by the doctor in the presence of one nurse before being wheeled into the operating theatre. A room is provided in which the surgeons hold their consultations, and the equipment of the lavatories is all that could be desired. On a dull day, or in the night, the theatre is brilliantly illuminated by electricity. The operating table is a model of ingenuity. The operating surgeon and his assistants wear a complete suit of white material, such as drill; they have caps on their heads, and india-rubber gloves on their hands, and their faces are covered as far as their eyes with a mask of gauze so that the eyes are the only portion of the face which is visible.

It was at first supposed to be necessary to perform operations in an atmosphere sprayed with carbolic acid, which I can remember caused a very unpleasant tingling in the hands and fingers, and also an uncomfortable feeling in the respiratory passages. At first the treatment was called antiseptic, because carbolic acid and corrosive sublimate were largely employed to destroy the vitality of the

minute micro-organisms supposed to be present, and to prevent their entrance into a wound in an active state.

PHAGOCYTOSIS.

Lord Lister, in his lecture on the steps which had preceded his discovery of the aseptic method of treatment, called attention to what he termed "the romance of phagocytosis." Phagocytosis is derived from two Greek words which mean "eating" and "cells." The term was applied by Metchnikoff, a Russian Naturalist, to the destruction by the leucocytes or white corpuscles of micro-organisms which gain entrance into the blood. Lister pointed out the importance of Metchnikoff's discovery in its relation to lengthening the average duration of human life, to the prevention and weakening of disease, and to diminishing the suffering of mankind. Sir J. Lister recognised in the pugnacious phagocites invaluable allies in the fight that is being urged against putrefactive microbes. The investigation which led Metchnikoff to the discovery that micro-organisms are destroyed by leucocytes, commenced with the examination under the microscope of one of the lowest forms of animal life called the "amœba." This is a one-celled body which is found in both fresh and sea water, and is seen to be constantly changing its form by protruding and withdrawing finger-like projections with which it is said to capture, engulf, and digest bacteria, or micro-organisms present in the water which surrounds it. The white corpuscles or leucocytes of the blood undergo similar changes of form, consisting of protrusions and withdrawals. Metchnikoff found a striking example of phagocytosis when examining a fresh water flea, an animal which is so transparent that the whole phenomena can be observed under the microscope. This fresh water flea is affected by a disease due to a growth in its tissue of a fungus, the spores of which are taken in with the food and penetrate from the alimentary canal into the body cavity. As soon as the spores gain access, the defensive mechanism comes into play, and the spores are surrounded and engulfed by the leucocytes, submitted to

a process of digestion, and finally destroyed. It is an impressive reflection that just as the aseptic method of treatment had its origin in Pasteur's discovery, that putrefaction is caused by micro-organisms in the air, so the doctrine of phagocytosis, or the eating or destruction of one set of cells by another set of cells, started with the discovery by Metchnikoff, the Russian Naturalist, in his examination of *water* containing an "amœba," or a water flea. Metchnikoff was led to examine the action of the leucocytes, or wandering cells of the higher animals, and found in them a similar power of engulfing and digesting living organisms. The leucocytes are attracted to the region of the bacteria owing to the fact that the bacteria give off soluble substances for which the leucocytes have an affinity, so that they move into the region in which these substances exist in a high state of concentration. Metchnikoff found that in cases where phagocytosis was active, recovery usually took place, and that when it failed the bacteria continued to grow and death occurred.

A knowledge of bacteriology has been found of great assistance in the diagnosis and treatment of various forms of throat illness, and in many instances has enabled the doctor to decide where a doubtful case should be placed. Hosts of workers in different countries have demonstrated that infectious diseases are caused by micro-organisms, and that special diseases, for example, tuberculosis and diphtheria, are caused each by its own special micro-organism. They have thus confirmed the induction which had already been made by Pasteur that all infective diseases are caused by micro-organisms. Lord Lister said we cannot look forward with anything like confidence to being able even to see the micro-organism of every infectious disease, and he gives as an illustration the discovery by Pfeiffer, of Berlin, of the micro-organism of influenza, perhaps the most minute of all micro-organisms ever yet detected. The bacillus of anthrax is a giant as compared with this tiny being, and supposing the micro-organism of any infectious fever to be as much smaller than the influenza bacillus as this is less than

that of anthrax, it is probable that it would never be visible to man. The improvements in the microscope have apparently nearly reached the limit of what is possible, but that micro-organisms are really the cause of all infectious or catching diseases can no longer be doubted. The destruction or taking up of micro-organisms or other solid elements by living cells, as by colourless blood corpuscles, has led to the adoption or advancement of a theory by Metchnikoff and others to explain immunity. It has been found that if micro-organisms such as anthrax bacilli are introduced into an insusceptible animal, some of them will be found within the bodies of the leucocytes, while this does not occur in a susceptible animal. This fact has led to the enunciation of the doctrine that immunity, or insusceptibility, depend on the ability or inability respectively of the body cells to destroy micro-organisms.

I remember the profound sensation which was caused by the announcement in the daily newspapers of Metchnikoff's theory of phagocytosis, and it is interesting to recall some of the comments :

Our blood is the battlefield of microbes, and our recovery or our death is the result of the contest between them.

We have within us minute combative organisms, which have taken their abode in our system as resolute defenders against the hosts of bacteria, which are ceaselessly watching for a breach within the walls of the living citadel.

The human body would almost seem to be the battle ground of contesting hosts of microscopic organisms.

It is consoling to know that although we are assailed on all sides by countless microscopic foes, we have within the citadel a lively and industrious defender known as the phagocyte. The phagocytes are devouring cells which attack the microbe of infection and in the same proportion as they are numerous and active is the liability to disease lessened.

X-RAYS.

The wonderful revelations made by the X-Rays have excited profound interest, and placed the treatment of fractures of the bones and dislocations of the joints on a much more satisfactory basis than it ever was before, for it is now possible to examine them as if the flesh was transparent, and not only to examine them, but also to take photographs. The position of bullets, needles, pieces of

steel, and many other foreign bodies can be ascertained and photographed without resorting to the painful process called probing for them. Some of the diseases of the internal organs can also be elucidated by the X-Rays, and by this agency several diseases of the skin can be cured. Calculi in the kidney, gall and urinary bladders, and obstruction in the stomach and intestinal canal can be inferred from the shadows. I have in my possession a square-shaped piece of steel two and a half inches long and a little over two ounces in weight. At one end it tapers to a blunt point, and at the other it is surmounted by a round, flat, studlike projection. It is probably used for driving nails further home than could be accomplished by the hammer alone. This little article was swallowed by a man, who shortly after the occurrence was admitted into the Preston Infirmary under the care of the late Dr. Dunn, whose widow presented it to me. Dr. Arthur Rayner, the very able director of the X-Ray department at the Preston Infirmary, writes me :—

> I watched this piece of iron on successive days passing up the ascending, across the transverse and down the descending colon, where it was finally safely voided. The patient, who was of somewhat doubtful mental calibre, solemnly assured me that he had bitten the piece of iron during the process of picking his teeth.

TUBERCLE BACILLUS.

In 1882 very valuable information was communicated by Koch in reference to the tubercle bacillus, although its existence had been discovered by Baumgarten a few years previously. The revolution which has been caused by the tubercle bacillus, a micro-organism, the existence of which can only be demonstrated by a staining process and the aid of a very powerful microscope, is something like a romance. Attention has lately been called to the circumstance that the common household fly, which is such an annoyance to housekeepers, and with whose unpleasant tickling we are all so familiar, is a great friend of the tubercle bacillus and is a factor in the determination of tuberculosis, as well as of typhoid fever and other diseases. When we consider that in Lancashire one in every fifteen deaths is due to

tuberculous disease of the lungs, or what is popularly known as consumption, and that in the year 1919, 155 deaths from consumption occurred in Preston, the necessity for doing everything possible to reduce this high rate of mortality commends itself at once to our judgment. The inestimable value of fresh air and sunlight has always been recognised, but their special importance in relation to tuberculosis is a discovery of comparatively recent years. People's views in reference to the amount of fresh air desirable in a bedroom differ very much. Some are satisfied with sleeping in a room with the windows closed, while others are content with nothing short of the wide open window day and night, winter and summer. The latter is what is aimed at in sanatorium treatment. No amount of wet and cold is allowed to interfere with the arrangement, care being only taken that the patient is shielded as much as possible on the side from which the wind is blowing and that he is kept warm by hot bottles and plenty of clothing. A few years ago I visited a number of sanatoria, and at one of them I asked the Resident Physician if he would kindly favour me with a copy of the prescription for the cough mixture which is given to the patients to relieve one of the most distressing of consumptives' symptoms. He said that cough mixture was not used; the great remedy was fresh air admitted through the open windows. It was his experience that, although at first the patients complained of the cold air, they soon grumbled when the window was closed. I remember hearing of a commercial traveller who called at an office in Preston looking like a man in an advanced stage of consumption. He appeared a year afterwards the picture of health and scarcely recognisable as the same person. He had not been seated long before he said, "Would you please open the window. I have been in a sanatorium, and cannot breathe comfortably unless the window is open." When asked how his wife liked so much fresh air, he replied that she could not sit in the same room with him. This little story is an illustration of what may happen, but rarely does. The great drawbacks in connection with sanatoria

are, firstly, the small number of them compared with the number of consumptive patients requiring sanatorium treatment; secondly, the insufficient time the patient is allowed to remain; and, thirdly, the want of some place where the patient can reside for a few months before he returns to his own home. At Northwood, in Middlesex, I saw a palatial sanatorium which was erected at a cost of £100,000 by a South African millionaire, a connection by marriage of the late Sir John Gorst. In this institution there are many young women seamstresses and others, who have come from London slums and have to return to them in many instances after being only three months under treatment, which is much too short a time for permanent benefit to be obtained. It is now well known that the cause of consumption, or tuberculosis of the lungs, is the tubercle bacillus, a rod-like body, slightly bent and somewhat rounded at both ends. It is so minute that, according to Professor Crookes, 900 could stand upon the point of a small sewing needle. The recognition of the bacillus and its effects constitute one of the greatest marvels of science. The bacillus flourishes in dark, ill-ventilated, warm, moist places. In 1906 the National Assocation for the establishment and maintenance of sanatoria for workers suffering from tuberculosis, established a sanatorium at Beneden, in Kent. The foundation stone of the building was laid by Princess Christian on July 14th, 1906, and the first patient was admitted on March 4th, 1907. Our beloved Sovereign, King Edward the Seventh, took the chair at a dinner which was held at the Hotel Cecil in aid of the Association, and in proposing the toast of the evening, gave an eloquent and interesting description of the benefits derived from the principles carried out in sanatorium treatment. Since then similar institutions have been established in various parts of the Kingdom, and under the National Insurance Act the number has been considerably increased. It is very interesting to contrast the treatment of pulmonary tuberculosis or consumption, which was practised in the early part of my medical career, with the

sanatorium form of treatment which is adopted to-day. Patients were carefully guarded from cold, and confined to hot and ill-ventilated rooms and not allowed outside the house except in warm, summer weather.

Mortality from tuberculosis in the County of Lancashire and Borough of Preston in 1919 :—

	Borough.		County.
Pulmonary Tuberculosis	114	...	1339
Tuberculous Meningitis	9	...	101
Other Tuberculous Diseases	32	...	257
	155	...	1697

NURSING.

The modern system of nursing had its commencement in 1836. The credit of inaugurating the new order of things belongs to Germany, for it was at Kaiserworth that the institute for training deaconesses was founded, and it was at this institute that Florence Nightingale acquired the practical knowledge which enabled her afterwards to turn her remarkable gift of organisation to such brilliant account. During the nineteenth century the qualifications of nurses were greatly raised by the influence of Florence Nightingale, Mrs. Fry, and others, amongst the most important of whom may be numbered Queen Victoria, Queen Alexandria, and our present Queen. In 1877 the St. John Ambulance Association was founded, and in association with it lectures to women on home nursing and hygiene are now given regularly in every part of the country. A few years ago Queen Alexandra, accompanied by her sister, the Dowager Empress of Russia, inspected at Devonshire House over 1,100 of the nurses associated with the Queen Victoria Jubilee Institute. They came from all parts of England, Wales, Scotland, and Ireland. Every one of these women had three years of hospital training, and underwent an additional special preparation for work in ill-equipped homes. They spend their days in the homes of the poor,

going from case to case, dressing, advising, instructing, or contriving some rough and ready device for a back country case where necessity must invent.

The nurses in the early part of the century were of a type so graphically described by Dickens in *Martin Chuzzlewit, Sketches by Boz*, and other papers. Most of us remember one of them who was called Mrs. Gamp, and who Dickens told us was a fat old woman with a husky voice ; her face, the nose in particular, was red and swollen, and it was difficult to enjoy her society without being conscious of a smell of spirits. Her usual accompaniments were a species of gig umbrella, a pair of pattens and a snuff-box. Mrs. Gamp lodged at a bird fancier's in Kingsgate Street, High Holborn, next door but one to the celebrated mutton pie shop, and directly opposite the celebrated cats' meat warehouse. At night, during unsuccessful attempts to awaken Mrs. Gamp, the noise would arouse the whole street, and people were to be seen putting their heads out of the windows and inquiring the cause of the noise.

I remember the time when there was no proper nurse at the Preston Workhouse, but merely an old lady who officiated as matron and nurse. The nursing staff at the present day consists of superintendent nurse, night superintendent nurse, four charge nurses, and 27 probationer nurses. There is also a separate hospital cook and a nurses' home, with two paid maids.

AMBULANCE.

It is interesting to compare the arrangements for the care and treatment of injured railway servants up to the time when the Preston Royal Infirmary was opened in 1870, with those which existed previous to that date. When a man had been seriously injured, he was carried to one of the 11 beer-houses which were to be found at that time in an adjacent thoroughfare called Butler Street, and there he had to remain until he either died or recovered sufficiently to be removed to his home. In the event of an operation, such as amputation of a limb, being required, it had to be

performed in this most unsuitable place. There were no trained nurses and none of the useful appliances which are provided at an infirmary. I have been present at an operation in the night when the only light was that supplied by a candle. Ten years later, however, the Preston Infirmary was opened, and many of the defects in the care and treatment of persons injured on the railway were remedied, but there was still an important requirement. There was no suitable conveyance for the removal to the Infirmary of those who were too seriously injured to ride in a cab, and people walking in the main street of the town had to encounter the unpleasant spectacle of some suffering creature carried shoulder high on a door or shutter by four or six men. A few years later I collected sufficient money to purchase a horse ambulance carriage, and since then one or two of a more up-to-date character have been supplied. In connection with these additional advantages, I must not omit to mention the very valuable services which are rendered by the railway servants who have obtained certificates from the St. John Ambulance Association of fitness to render first-aid. Nowadays, when a man is injured on the railway too seriously for treatment at his own home, he is attended to in the first instance by a member of the Ambulance Corps; he is next examined by a medical man, and then he is conveyed in the ambulance carriage to the Infirmary, a message having previously been sent through the telephone asking the Resident Medical Officer to have a bed and such comfortable appliances as hot bottles ready for him on his arrival.

THE ORDER OF ST. JOHN OF JERUSALEM.

This contains two departments :—

1. The St. John Ambulance Association.
2. The St. John Ambulance Brigade.

The Association is the teaching section. Through its agency, those who desire it obtain first-aid, nursing, and hygiene certificates. The Brigade invites the certificate

holders to join its Corps Division and Nursing Division. Here they are further trained in ambulance detail, and each year they have to maintain a standard of efficiency by attending so many drills, passing an annual re-examination and parading for inspection, thus demonstrating that their knowledge of first-aid is retained. The St. John Ambulance Brigade has made great progress both at home and overseas, and incidentally, it may be stated here that two reserves, one for the Navy and one for the Army, have been raised by the Brigade. Two thousand of the men who joined the Army Reserve saw service in South Africa, and during the last Great War 22,000 trained men were supplied to the Admiralty and War Office through the medium of these reserves. There was no theatre of war that did not have its quota of St. John men. Apart from the Naval and Military side of the St. John Ambulance Brigade, there is the civil side. During both day and night, first-aid is available to those who unfortunately need it in our streets, offices, mills, factories, and workshops. Much of the transport work connected with the sick and injured is carried out by St. John Ambulance Brigade men.

AMBULANCE.

The St. John Ambulance Association was founded and established by the order of St. John of Jerusalem in 1877. Its objects are :—

1. The dissemination of instruction in first aid, i.e., the preliminary treatment of the sick and injured, pending the doctor's arrival.
2. Lectures to women on home nursing and hygiene.
3. The deposit in appropriate localities of material, such as stretchers, hampers, splints, bandages, &c., for use in case of accident.
4. The development of ambulance corps for the transport of the sick and injured. Upwards of 250 administrative "centres" and tens of thousands of "detached classes" have been formed in all parts of the United Kingdom, India, the Colonies, and else-

where abroad, and over 1,452,427 certificates have been awarded.

The interest in ambulance work in Preston commenced prior to the formation of the centre in 1889. It dates back to 1888, when there was a corps formed, with Dr. W. H. Irvin-Sellers as chief officer. He died very suddenly on November 12th, 1921, ten days after opening the new headquarters in Chapel Walks, Preston. He was corps superintendent and corps surgeon, and devoted 33 years to the work of the association. In November, 1889, Mr. Herbert Brierley was appointed hon. secretary, and he is still giving his valuable services. Mr. W. H. Woods is the president of the corps and Dr. Riddell is the chairman of the corps. Mr. James Howarth, New Longton, near Preston, is the corps secretary, and Mr. E. F. Millington, Avenham Street, Preston, the corps treasurer. The movement received a noble response from the doctors in Preston. Many applications were made to them to act as instruction surgeons to the classes, and they have rendered valuable services without fee or reward.

A few years later I gave instructions to railway men in one of the offices on the Preston Station, and I allowed employees at some of the mills and workshops in the town to attend the classes and to sit at the examination for certificates with the railway men. It would be impossible to describe all the work done by the Ambulance Brigade and Nursing Division. It is only fair, however, to call attention to the assistance given during the war to the Moor Park Hospital by all who passed through the classes. The head of the Hospital, Mrs. Howard (the Matron), is an old St. John worker, and she occupies the post of lady corps superintendent. Mrs. Pickles has also been one of the most enthusiastic workers in connection with the ambulance movement in Preston, and she has rendered invaluable aid in giving instruction to candidates in bandaging and the application of dressings.

Preston has evidently been recognised by the headquarters in London as holding a prominent position. Two

years ago it was arranged, on a scheme known as Lord Ranfurley's, that Preston should be one of the Lancashire centres, and it is known as the North-West Lancashire Centre. Its area extends from Arnside, taking in the coastline and inland places as far as Chorley. Another Lancashire centre is known as the North-East Lancashire Centre, with Accrington as its headquarters, and taking in all the East Lancashire towns bordering on Yorkshire. Classes and examinations are arranged from these centres.

SUBJECTS OUTSIDE MY OWN PROFESSION WHICH HAVE INTERESTED ME.

DOMESTIC SCIENCE.

I BECAME interested in this subject in 1858, when I was appointed House Surgeon to the Preston Dispensary. It was a portion of my duties to attend at their homes those who were too ill to come to the Dispensary to be examined and prescribed for. The patients were those who were not well off enough to pay a private doctor, and not so poor as to require relief from the Poor Law Guardians, and during the Cotton Famine in 1862, many had to avail themselves of the Poor Law arrangements, and many of the patients were of a higher social position than those in the year preceding the famine.

I was very much impressed with the dirty condition of many of the houses, and the absence of ventilation, and also with the want of knowledge of cookery, laundrywork, and housewifery. I was less surprised with these circumstances, however, when, in 1863, I was appointed a Certifying Surgeon under the Factory Act, and had to examine "children" and "young persons" as to their fitness for employment in cotton spinning and weaving factories. Children were those between eight and 13 years of age, and young persons, those between 13 and 16. Children were required to attend school during one half of each day, and were permitted to work during the other half. The children were thus divided into what were called the morning and the afternoon set, and each week they changed places. From 1846, when Lord Shaftesbury's Bill came into force, young persons, or full timers, were allowed to work from 6 a.m. to 6 p.m., except on Saturday, when they ceased at 12 o'clock. I had also in cases of accidental injury to persons working in the mills, to examine them, describe the nature of the

injuries, and send a report to the Home Office in London. In visiting these persons who were so seriously injured as to be confined to the house, I had a further opportunity of inspecting homes and surroundings. In a report on the health of the town which I wrote in 1861, I called attention to the want of a knowledge of cookery, housewifery, and laundry-work, amongst the females employed in factories and workshops, and I pointed out that they had no opportunity of acquiring a knowledge of these subjects, as from eight to 13 they were half of each day at school or in the factory, or at 13, the whole day from 6 a.m. to 6 p.m. In due course they married, and had to undertake the care of a family without having been taught the necessary duties of a married woman. I asked the question, "Could not this knowledge upon which the comfort and welfare of so many depend be imparted in connection with the school in which the girls are taught reading, writing, and arithmetic?" When I spoke to education authorities and inspectors of schools on the subject, they shrugged their shoulders and said that there was no time for teaching such subjects. But I am glad that I have been permitted to live long enough to see that in Preston every child attending the elementary schools is compelled to undergo, on attaining the age of eleven, practical instruction in cookery, housewifery, and laundry-work. When I see children in the streets who are only eight years of age, I cannot help feeling that Lord Shaftesbury's Act, which was considered a great improvement on previous Acts, left very much to be desired, and I am thankful that the age has been gradually raised until children under 13 can no longer be employed in factories and workshops.

A copy of the kind of certificate which I had to fill up in 1863, and many subsequent years, is interesting when compared with the form in use to-day :—

No. 396. [COPY]

FACTORIES REGULATION ACT, 7 Vic. c. 15.

Certificate of Age of a Young Person
To be employed in the factory of Messrs. W. Calvert & Sons, situated in Walton-le-Dale.

I, Robert Charles Brown, of Preston, duly appointed a Certifying

Surgeon, do hereby certify That *Margaret Eccles, Dr.* of *James Eccles* and *Dorothy Eccles,* residing in *Walton-le-Dale,* has been personally examined by me, this *Second* day of *December,* One thousand eight hundred and sixty-three; and that the said Young Person has the ordinary Strength and Appearance of a Young Person of at least THIRTEEN YEARS of Age, and that I believe the real Age of the said Young Person to be at least Thirteen Years; and that the said Young person is not incapacitated, by Disease or bodily Infirmity, from working daily in the above-named Factory for the time allowed by this Act.

(Signed) ROBERT CHARLES BROWN,
Certifying Surgeon.

I was always a great believer in the desirability and importance of having every female, whatever position in life she occupies, taught practical cookery, housewifery, and laundry work. As a medical man I have seen in many houses, during my long career, very painful illustrations of the want of this knowledge, and never so much as during what may be called the period of the scarcity or disappearance of domestic servants.

In 1906 I promoted the interest of students in training for teachers in domestic science and housewifery, and gave them opportunities of better advancing their studies by allowing them for some years the use of my house. Six or eight of them came three times a week to 27, Winckley Square, accompanied by a teacher. The following interesting story is told by Colonel Jolly in his report of the origin and work of the Harris Institute :—

I was walking down Moor Lane to the Institute one afternoon, and passing an unusually clean-looking house, saw a smart woman of 23 or 24 standing at the door. I noticed a kindly smile on her face as I approached, and must confess that I returned what appeared to be a friendly greeting in a similar manner. When she said, "Mr. Jolly, you don't know me." I had to admit that she had the advantage. She said, " Ah, but I know you. I've seen you many a time at the Cookery School, and if there'd been no Cookery School I might not have been here. You know, Mr. Jolly, I went to Smith's Mill, and Jack ———— was courting me. He's a joiner, you know, and attended Mr. Pye's classes. He told me straight that before he'd wed me I should have to learn to cook and iron. Well, I went to your classes last winter, and now here I am with the nicest house in the row, and proud I am of it, proud of the school, and our Jack's proud of me, and you can tell whoever you like that going to the school in Glover's Court is the best way of getting a decent husband."

MUSIC.

I have always been fond of music from the time when

I played tunes on the piano, with one finger, up to now, when I find it in my old age a pleasure and a comfort, my appreciation of which I cannot express in words.

If I had displayed as much energy in practising on the organ and piano in my youth as I have at 85 years of age, I have the vanity to think that I should have been what is called an accomplished player, which I certainly am not. I spend at least two hours a day at either the organ or the piano, or both, with a view to preserving the suppleness of my fingers, some of which, as well as the larger joints, are the seat of chronic gouty arthritis. It is probable that if this infirmity had not come upon me, I should not have devoted so much time to music, and therefore I may regard the joint trouble to some extent as a blessing in disguise. Much of the music of the present day gives me little or no pleasure. I like a melody which I can retain in my memory, and although I am prefectly ignorant of the principles of correct harmonious arrangement, I can detect where this is wanting.

I wish I could describe the thrill which I experienced when I first heard Madam Antoinette Stirling sing Sullivan's "Lost Chord," and the pathetic rendering of Liddle's "Abide with Me," by Madam Clara Butt.

When I was a medical student at King's College Hospital, from 1855 to 1858, I lived not far from the Foundling Hospital Chapel in Guildford Street, and on most Sundays I attended the service, either in the morning or afternoon, or both. I have no difficulty in playing from memory the 30 chants which I heard during that period. Several of them were composed by the organist, Mr. Willing, between 1855 and 1858, and as I sat in the gallery not far from the organ, I have observed him draw the curtain aside and hand a slip, which I have no doubt contained a new chant, to each of the five professional singers. It was my practice when I returned to my rooms to play the new chant on the piano and, although I made it out entirely by the sound, I found when the music was subsequently published, that my melody and harmony

were generally correct, although I am entirely ignorant of the rules of harmony.

I was organist of Holy Trinity Church, Preston, for five years, but the service was a very plain one, consisting only of chants and hymn tunes. It it had been more elaborate, I should not have considered myself competent to undertake it.

I was President of the Preston Musical Festival Committee for four years and of the Preston Amateur Operatic Society for a similar period, during which the members gave very creditable performances of Gilbert and Sullivan's " Trial by Jury," " The Pirates of Penzance," " Patience," " Iolanthe," and " The Mikado."

I gave an organ to each of the following institutions :— The Preston Royal Infirmary ; The Preston Grammar School ; The Harris Orphanage ; and The Home for the Blind. Until two years ago, I played the organ at the Preston Royal Infirmary every Sunday evening for about an hour, and most of the patients greatly appreciated my services. Many of of them said that it was delightful to be in bed recovering from an illness or the effects of a surgical operation, and listening to the soothing tones of an organ. I can verify the correctness of what has been said of the beneficial influence of the tones of an organ in the distance, from my own personal experience. After a serious illness which I had in 1883, my friend of many years standing, Mr. James Tomlinson, the Preston Borough Organist, a most accomplished musician and performer on both the organ and piano, used to delight me with selections from the works of Mendelssohn, Haydn, Spohr, Henry Smart, Barnby, E. J. Hopkins, Stainer, Dykes, and other well-known composers.

It was one of the great pleasures of my life to give an organ to the Preston Grammar School, where I received the whole of my education, except the medical portion of it. I felt that an organ would be an appropriate gift and one which would be much appreciated. An organ has many recommendations. It is an important auxiliary to religious worship, and as the day's work at this school begins with

prayer and singing, I have the satisfaction of knowing that it has been found a valuable addition to the equipments of the school. Apart from the aid which it gives to religious worship, it will be of great assistance in accompanying the pupils' singing classes, and in emphatically illustrating the difference between a right and a wrong note. Moreover, the organ will be of great service in promoting a taste for organ music and in teaching pupils how to play the king of instruments—a term which has been applied to the organ on account of the number of pipes which are under the control of one performer, and the varieties of tone which can be produced either singly or in combination. The remarks which were made at the opening of the Grammar School organ by Dr. James, Master of St. John's College, Oxford, and formerly Headmaster of Rugby, are worth repeating. He said, "Music teaching was a branch of their school work which was advancing more rapidly of late years than any other. Instrumental, orchestral, vocal, and choral music had all reached a development quite undreamt of when he was at school. The attitude of teachers and boys had completely changed for the better. They got great access to instumental performances, and that on a considerable number of different instruments. All arts had their place in education, especially in a materialistic age like the present, and music was by no means the least of the arts they ought to be teaching their boys."

Musical competitions are held annually at Blackpool, Morecambe, and other places. They bring to light those who have good voices and also instrumentalists who would otherwise be unknown, or known only to a few. The competition for a prize is a powerful stimulus to vocalists and instrumentalists to exercise their best efforts and those who failed to obtain one, reap the advantage of having increased their knowledge of music and their faculty of singing during the work of preparing for the contest.

The introduction of action songs by children has been a great step in advance and has afforded much pleasure to their parents, and most members who are present at the

competitions. A great deal of the music which is rehearsed at the local Musical Festivals is more remarkable for the difficulties it presents to the candidates than for the pleasure it gives to the audience. The Blackpool Musical Festival, which takes place annually in October, is now recognised as the most important of the Northern Competitive Festivals, and it draws its supporters from all parts of the Kingdom. The adjudicators for the various Preston Musical Festivals were Dr. W. S. McNaught, Mr. Dan Price, Mr. Harry Evans, Dr. Mann, and Dr. Roland Rogers, with Mr. C. H. Fogg and Mr. J. E. Adkins, the accomplished organist of Preston Parish Church, as assistants. It was a great pleasure to be associated with men so well known in the musical world, and especially with those of them whom I entertained in my own house.

A very interesting incident occurred to me in connection with the Gilbert and Sullivan operas. In December, 1899, I went to the Preston Theatre to see a D'Oyley Carte Company in "The Sorcerer." A few minutes after the performance had commenced, one of the ladies suddenly collapsed, and would have fallen but for the support of one of the gentlemen. I was requested by the manager to go to the back of the stage, and I found that the lady had a temperature of 104° F., and that she was shivering. Presently a young gentleman appeared who told me that he was an officer in Her Majesty's Navy, and that he was engaged to the young lady. I directed him to go to her rooms and ask her landlady to make a fire in her bedroom and put a hot water bottle in her bed, and when she had arrived there, I let her have a hot-air bath, and she told me that it was the most luxurious method of treatment she had ever experienced. The hot-air is generated by a spirit lamp and contained in a circular tin box, from the top of which a chimney conveys it under the bed clothes, which are sufficiently raised by a bridge made of wicker work. The lady's mother came down from London the next day and remained with her until the end of three weeks, when she had sufficiently recovered to leave Preston. The gentleman, during this time, was a frequent

visitor to my house. I had a letter from him last year reminding me of my attendance on the lady who shortly afterwards was married to him at a cathedral, by a bishop. His letter also contained the gratifying information that he now occupies a high position in His Majesty's Navy. He was fortunate in securing such a handsome, charming, and highly accomplished lady, and I regarded it a privilege and pleasure to attend her.

COMPLAINTS WHICH HAVE AN IMPORTANT RELATION TO ANTITOXIC SERUM.

DIPHTHERIA.

IN the *Lancashire Daily Post* of January 11th, 1922, I read, "London is at the present moment undergoing a very severe epidemic of diphtheria, the number of patients suffering from this disease who are at present in the Metropolitan Asylum Boards Hospitals constituting a new record. There are now 3,215 cases of diphtheria in the Boards Hospital, as compared with 2,562 and 1,821 on similar dates in 1921 and 1920."

Writing in 1871 the late Sir T. Watson said, "I had been for more than a quarter of a century in practice in London before I ever met with a case of diphtheria or scarcely so much as heard of such a disorder."

In the year 1855 alarming rumours reached this country of its prevalence and fatality at Boulogne. Soon afterwards scattered cases of the disease began to appear among us, and presently so multiplied in number as to constitute a real epidemic. It has never since ceased to be the dread of parents, and I may say of medical men also.

The bacillus now recognised as the specific cause of the disease was discovered about the year 1884. The discovery of antitoxic serum, which is now recognised as such a valuable agent in the treatment of diphtheria, was one of the indirect results of Koch's experiments with tuberculin.

We learn from the writings of Hippocrates, Galen, Celsus, and others that diphtheria existed in the earliest ages, and it is certain that epidemics of it have occurred at times in various parts of Europe during several centuries.

The bacillus may remain alive for weeks, or even months, in fragments of dried membrane. Evidence has been brought forward to show that it may sometimes be transmitted over

considerable distances of country by the wind. It is probable that the disease is due to something which can fertilise in air and water, and which subsequently taken into the human body can develop the disease in a contagious form. Diphtheria has appeared to be due in some cases to polluted water, and it is certain that it may be transmitted by milk. Recent researches of Klein give circumstantial evidence that cats suffer from a form of diphtheria similar to that which affects human beings. It is therefore possible that cats may have been the originators of epidemics of diphtheria among the human inhabitants of the household to which they belong.

Behring's treatment of diphtheria by the subcutaneous injection of antitoxic serum is another striking illustration of the important relation which exists between the exciting cause of disease and the remedies for its prevention and cure. The power of infection in diphtheria is, as a rule, not so great as that of smallpox and scarlet fever, or at any rate diffusion in the air seems to weaken it so that those who catch the disease are usually those who have been in close contact with the patient and have inhaled his breath or the affected atmosphere about him, or have had some of his or her expectoration ejected into the mucous membrane of their own throat. Persons have also contracted the disease by kissing the patient, or by going into the presence of one affected with diphtheria whilst suffering from an abrasion or sore. Medical men have introduced it into their own throats by suction whilst endeavouring to clear an obstructed tracheotomy tube. Diphtheria is said to originate sometimes *de novo*, in connection with bad drains, and in newly inhabited houses which have been built on "made soils." In considering the possibility of its origin *de novo*, however, we must remember that the bacillus may remain alive for weeks, or even months, in fragments of dried membrane. The way for the diphtheria poison may be prepared by other diseases, such as tonsilitis or quinsy, rendering the throat a vulnerable point, or by diseases which weaken the system and so diminish its power of resistance. According to Sir R. R. Thorn, school attendance is an important factor in

the propagation of diphtheria. He thinks that the association of a number of children under one roof for several days daily is not only favourable to the transmission of infection, but the children are at an age when they are very likely to take diphtheria on being exposed to it, and at an age when they are very susceptible to the noxious influence of overcrowding and inadequate ventilation. As regards the relation of the bacillus to the treatment of the disease, the injection of antitoxic serum has now obtained such a firm hold on the confidence of medical men, in consequence of the success which has attended the use of it, that in combination with efficient local treatment, it has superseded every other method which has hitherto been adopted. Now the early injection of antitoxic serum and flushing the throat, and, if necessary, the nasal passages, with some antiseptic and astringent solution, is the treatment adopted. It is claimed for it that it checks the development of the disease, causes the wash-leather like membrane which forms on the throat to separate earlier, diminishes the frequency of the windpipe becoming affected, and reduces the mortality. More careful supervision of children in public schools, the bacteriological examination of suspected cases, and precautions against the dissemination of the disease are still urgently needed.

Since the advantages of the antitoxic treatment of diphtheria were disclosed, it has been recommended that immediately upon the diagnosis being known, and even before, if there is a high probability of the suspicion being confirmed by bacteriological examination of a swab from the throat, antitoxic serum should be injected. The serum is prepared by rendering a horse immune by successive injections of increasing quantities of the culture fluid of the diphtheria bacillus, deprived of the organism itself and when the animal is at length completely unsusceptible to the diphtheritic poison, the animal is bled, and its blood serum is found to have the power of neutralising the influence of diphtheria cultures injected into animals, and hence it appears that this serum contains a substance (antitoxin) which antagonises the toxin of the diphtheria bacillus.

TYPHOID FEVER.

The typhoid bacillus was discovered in 1880.

It is believed to enter the body with the food or drink, or by inhaling emanations from dust heaps, privies, water closets, drains, and sewers. It is also supposed that the bacilli contained in the fœcal discharges which have been allowed to dry on the patient's linen or person, or in receptacles containing the bacilli, are disseminated in the form of dust. Drinking water contaminated by sewage and defective sanitary arrangements are frequent factors in the production of the disease. It is now well known that milk, butter, cream ices, oysters, cultivated in estuaries which receive sewage, water cresses grown in ditches contaminated by sewage, lettuces and other salads watered with polluted water, sometimes spread the disease.

Dr. Cayley, one of our most eminent authorities on the subject of fever, thinks that articles of food may be contaminated by flies, to whose feet the typhoid germs may easily adhere.

Since the bacillus was discovered, an important aid to diagnosis has been given to us by Widal, in what is known as the serum test. It is found that when the blood serum of a typhoid patient is mixed with a cultivation of typhoid bacilli, the latter become motionless.

The general principles on which typhoid fever is treated to-day differ little from those which were in use 50 years ago. There are two methods, however, which have been introduced since the discovery of the bacillus—the eliminative and the antiseptic. The antiseptic consists in administering remedies to destroy or render inert the typhoid and septic microbes in the intestinal canal. The other, the eliminative, has for its object the elimination by purgatives of the toxins and expulsion of the bacillus. The antiseptic method is useful in checking putrefaction and fermentation in the intestinal canal, but does not destroy the typhoid bacilli which are lodged in the glands and spleen. The eliminative method is not free from danger, as it stimulates an ulcerated bowel to active peristalsis, and as the typhoid baccilli are

mainly embedded in the tissues and glands, they are not affected by purgatives. There are a few other measures which have an important bearing on the prevention of typhoid fever which were **not** adopted 50 years ago. I allude to the isolation of patients instead of treating them in the wards of a general hospital, and to the notification of cases to the sanitary authority, and to the disinfection of the urine as well as the fœces.

The practice of sponging the surface of the body with cold, or tepid water, was in favour 50 years ago, but the custom of placing the patient in a bath containing water at a temperature of 80° Fahr., or lower, for 15 minutes, whenever the thermometer registers above 102° Fahr., is a much more modern one.

Vaccination, with an emulsion recommended by Sir Almroth Wright and Professor Sempel, is used to render persons exposed to the dangers associated with typhoid free from the risk of contracting the disease. Extensive observations were made on the British Army in India, and during the South African War. The general result is that, on the one hand, protective inoculation diminishes the tendency for the individual to contract typhoid fever, and on the other, if the disease be contracted, the likelihood of its having a fatal result is diminished. It is stated that during the Crimean War, 1854 to 1856, and also the South African or Boer War, more soldiers died from typhoid fever than were killed in battle.

When Sir F. Treves spoke of flies as being one of the two plagues which he met with during his attendance on the sick and wounded during the South African War, he probably had in his mind, amongst other considerations, their influence in the propagation of typhoid fever.

TETANUS, OR LOCKED JAW.

Very valuable knowledge has been acquired during recent years in reference to the circumstances under which tetanus arises, and the benefits which have resulted from the curative and prophylactic, or preventive treatment of it by

antitoxic serum. Of course, the most important fact in connection with the subject was the discovery of the micro-organism called the bacillus tetani, by Nicolaier and Kitasato. In making my remarks I wish to acknowledge with gratitude the assistance which I have received from consulting the text books in use by students and practitioners when I commenced my medical career, and those which are the recognised authorities of to-day. Amongst the former I must mention Sir Thomas Watson's lectures on "The Principles and Practice of Physic," and Druitt's "Surgeon's Vade Mecum," and amongst the latter, "A Manual of Surgery," by Rose and Carless, ninth edition, and "The Practice of Medicine," by Frederick Taylor, eleventh edition, and Hale White's "Materia Medica." If it had been possible for these gentlemen to know what pleasure I have experienced at 85 years of age, when disabled by difficulty in walking and fear of falling, from taking active exercise in the open air, I think they would not blame me in any way, even for sometimes quoting their exact words.

Tetanus is a local infective disease due to the bacillus tetani, associated with a characteristic form of blood poisoning. The bacilli, or their spores, are found to be very widely disseminated, and indeed are present in almost every sample of garden or field soil, stable refuse, and dust, and dirt of any kind. They have been found in the grime on a working-man's hand, and on dirty surgical instruments. Agricultural labourers are especially liable to the disease owing to their more constant exposure to infection. Horses are peculiarly susceptible to tetanus, and the bacilli are usually present in the fœces ; hence stablemen and others brought into contact with horses are attacked with comparative frequency. Serious street accidents, especially those due to tram cars and motor vehicles, are only too likely to be followed by tetanus. The depressed vitality of the tissues, owing to the bruising and tearing, favour the development of the tetanus bacilli. Hence it is rare for the disease to affect wounds where strict asepsis has been maintained and rapid repair has been effected, and it is very uncommon, though possible,

for it to develop after blows or bruises with no breach of surface. Gunshot wounds due to blank cartridges are often followed by it, since the injury is largely due to the wad which is made of coarse horse-hair felt, and is therefore likely to contain spores of the bacilli. Commercial gelatin, derived from the hoofs, etc., of horses, often contain the bacilli, and the injection of this substance in the treatment of aneurism has been followed by tetanus.

In places where tetanus is known to be rife, it is a wise precaution to administer antitetanic serum as a preventive, or immunising agent, in cases of wounds or abrasions which might possibly be infected, especially if due to street accidents, or if suspicious bacilli are found on microscopic examination of a scraping from the deeper parts of the wound.

In addition to excision, cauterisation of the wound or amputation of the limb, the specific antitetanic serum prepared from the blood serum of an immunised animal should be injected. The serum is purely antitoxic, and has no effect upon the development of the bacilli, for the destruction of which local phagocytosis, or other immunising action, has to be relied on.

The mortality from cases due to injury may be as high as 70 or 80 per cent., and that of other cases somewhat less. Under curative treatment by antitoxin, the percentage mortality may be reduced to 50 or 60, and in cases protected by antitoxin immediately after injury, it is perhaps smaller.

The anodynes and sedatives which have been employed in the treatment of tetanus can only be regarded as palliative, and should not exclude the use of the antitoxin.

During the war with Germany the success of the prophylactic, or preventive injections, has been established. During the early months, in the fighting on the Marne and the Aisne, tetanus was rife, its incidence in the wounded brought to Britain being about 16 per 1,000. Since the autumn of 1914, prophylactic, or preventive injections of antitoxin, were given to every wounded man as a rule at the dressing stations.

The celebrated American Physician, Dr. Rush, regarded tetanus as a disease of debility, and recommended the use

of wine and spirits in full dose. It is curious that however much wine may be swallowed by the patient, nothing like intoxication is produced by it. In an instance related by Dr. Currie, a chronic form of the disease lasted six weeks, and in that space of time the patient drank 110 bottles of port wine. The same author mentions a remarkable case in which a horse which was attacked by tetanus, and happening to be a great favourite with its master, was treated with wine, and got well after swallowing more port wine than he was worth.

It is interesting to contrast the brief summary of the causes recognised in Watson's time with those mentioned by Rose and Carless in 1918.

Watson says most cases of tetanus may be traced to one of two causes, which are, exposure to cold and wet, especially to sudden alternations of temperature and bodily injuries.

TETANUS ANTITOXIC SERUM.

This is prepared on the same principles as diphtheria antitoxin. We know that the tetanus toxin links itself closely to the proteins of the cells of the central nervous system, and that when it passes from a wound to the central nervous system, it travels along the protoplasm of the nerves. Unfortunately, this linking takes place almost coincidently with the appearance of symptoms, and when once the linking has occurred, no amount of antitoxin can dislocate it. Hence antitoxin, to be of any use, must be given directly the earliest symptoms show themselves. It has been injected directly into the brain in the hope that it may meet and neutralise the toxin before that reaches the nerve cells, or perhaps unite with the cells and thus prevent the toxin from doing so. A small cut is made down the bone, which is bored with a drill, and the antitoxin is directly injected into the cerebrum with a blunt needle. It is also given subcutaneously, intravenously, directly into the nerve from the wound, and intrathecally, and this certainly seems to be the best ; injection into the brain is rarely done now. No very striking success has attended its use in man, perhaps because tetanus

is not usually diagnosed till long after infection, and perhaps because, as just pointed out, the tetanus toxin is soon very firmly united with the proteids of the central nervous system ; but it is well to give the intrathecal treatment a trial, using as much as 5,000 units for a dose frequently repeated, and if there is any likelihood that the toxin is still being absorbed from the wound, 10,000 units may be given from time to time intravenously.

There is, however, a certainty that it may benefit if it is given directly after a patient has a wound which is likely to contain tetanus bacilli, i.e., such a wound as is contaminated with soil. In the late war English soldiers received as a preventive 500 units subcutaneously as soon as possible after the infliction of a wound, followed by three similar doses at intervals of a week, and there is every ground for believing that this practice is the reason why the deaths from tetanus are few as compared with other wars.

HYDROPHOBIA.

In 1885, Pasteur announced his discovery of a method, similar to vaccination, of checking hydrophobia in man and rabies in animals.

The hydrophobia microbe was discovered by Professor Sormani, in January, 1903.

The results hitherto obtained have been such as to indicate that we have in Pasteur's method a most powerful preventive against hydrophobia, provided that the disease has not been allowed too long a start.

In a report issued in 1896, it was stated that out of 726 cases treated, only four deaths occurred.

In his chapter on hydrophobia, written in 1871, Sir Thos. Watson says :—"What can I say of the treatment in hydrophobia ? There is no well authenticated case on record, that I am aware of, in which a hydrophobic patient has recovered. As it has been so it is still. The physician that cures is death."

A British Commission of inquiry (Sir James Paget, Sir Burden Sanderson, and others, appointed in April, 1886),

visited Paris and reported confidence in Pasteur's treatment, June 27th, 1887.

An international hospital, afterwards termed the Pasteur Institute, was founded in May, 1886, and opened by President Carnot, November 14th, 1888. Besides the institute in Paris, similar institutions exist in other parts of France, in Italy, and Russia, as well as in other parts of the world, and in these similar success has been experienced.

Until the publication of Pasteur's researches in 1885, the only means adopted to prevent the development of hydrophobia, in a person bitten by a rabid animal, had consisted in the cauterisation of the wound with the actual cautery. Such a procedure was undoubtedly not without effect. It has been shown that cauterisation, within five minutes of the infection of a rabic wound, prevents the disease from developing, and that if done within half-an-hour it saves a proportion of the cases.

Pasteur's preventive inoculation is based on the discovery that the injection of an attenuated virus in increasing doses, "and in gradually increasing strength protects an animal or an individual from the disease, and will even catch up the poison already inoculated, and save the patient from its subsequent development, if too long a start has not been given."

The poison is extracted by a suitable process from the spinal cord of a mad dog, and being made into an emulsion, is injected into the spinal cords of a number of rabbits. These cords are dried by hanging in a glass bell jar, with some caustic potash at the bottom, for variable periods. The virus is thus weakened in its intensity, until at the end of 14 days it is completely destroyed. Individuals are inoculated with portions of such cords pounded up in sterilised broth, beginning with the weakest and gradually increasing the strength of the injection until a preparation of a cord, which has merely hung one day, is used. Writing in 1896, Sir J. Lister said, "The Pasteur treatment of man has been adopted in various parts of the world with increasing success as the details of the method were im-

proved." It is not, of course, the case that everyone bitten by a rabid animal takes the disease, but the percentage of those who do so, which was formerly large, has been reduced almost to zero by this treatment, if not too long delayed.

HYDROPHOBIA VACCINE.

The most convenient places (for the inhabitants of Great Britain) where the treatment is carried out is the Pasteur Institute in Paris, and if the person bitten goes immediately after the bite, it is almost certain he will not suffer from hydrophobia. The incubation period of hydrophobia is fortunately several weeks, and hence, if the above treatment is carried out, it renders the patient immune before the incubation period expires.

DISEASES WHICH WERE PREVIOUSLY INCLUDED UNDER SOME MORE GENERAL HEADING.

APHASIA.

TROUSSEAU'S definition, "A classical name for loss of the cerebral faculty of speech," for "loss of memory of words." The speech of "Animals consists of changing tones of the voice and pantomimic attitudes and gestures." There is no mention of this in the 1857 edition of *Watson's Lectures*, but in the 1871 edition there is a full and graphic description of it, although nothing much had been written about it between the time of Heberden and 1866. The following is the account given of it more than a 100 years ago by Heberden in his famous *Commentaries*. "The inability to speak is sometimes owing not to the paralytic state of the organs of speech only, but to the utter loss of the knowledge of language and letters, which some have quickly regained and others have recovered by slow degrees, getting the use of the smaller words first, and being frequently unable to find the word they want, and using another for it of quite a different meaning, as if it was a language which they had once known, but which by long disuse had almost forgotten." After an apoplectic state continuing for several days, one person was forced to take some pains in order to learn again to write, having lost the idea of all the letters except the initials of his two names.

LOCOMOTOR ATAXIA.

There is not a more interesting occupation for the mind of a medical man who has been 50 years in practice than a consideration of the various changes of opinion which have taken place during that period in reference to the nature and appropriate classification of certain diseases, of the additions which have been made to the catalogue of diseases,

and of the improved methods of treatment. If, for instance, we compare the index of the edition of *Watson's Lectures*, which was published in 1857, with the index of the last edition of *Taylor* in 1918, an interval of 61 years, we are confronted with what appears to be a great number of new diseases whereas we know that they must have existed and have been described under some more general heading. For instance, there is no mention in the 1857 edition of locomotor ataxia. In the 1870 edition of *Sir Thomas Watson's Lectures*, he says, " Another definite form of disease has, within a comparatively recent period, been singled out from the crowd of symptoms engendered by disorder of the nervous system and been stamped with the hybrid title of locomotor ataxy. The disease was clearly though very slightly sketched, and its pathology foreshadowed by the late Dr. Todd. His outline of its form was filled into a complete picture by M. Duchenne of Boulogne ; while its true pathology has been certified by microscopic research under the practised and accurate eyes and with the peculiar method of Dr. Lockhart Clarke. You suspect when the patient comes to consult you that he has incipient paraplegia. In fact, these cases were usually mistaken heretofore for cases of paraplegia, but there is no muscular palsy, neither wasting nor want of power in the muscles." We have another example in aphasia.

NEURASTHENIA.

Neurasthenia, in these days, is a word of very extensive application and is often used in cases where a medical man is unable to decide what term would express a perfectly correct nomenclature diagnosis. The nervous element is now more than ever recognised as having an important share in the production of illness. In these days of telegraphs and telephones, flying through the air, in express trains or in aeroplanes, and such acute competition in every department of life that the problem how to make receipts equal to expenditure is continually harassing the mind, there is a fearful strain on the nervous system. Some think that

man's nervous centres are changing ; that they are becoming more prone to fatigue ; more easily the prey of morbid sensations, thoughts, and actions. Whether this opinion is correct or not, so prevalent has nervous exhaustion become that, during the last few years, the word neurasthenia has been coined to express this condition. Although there is no mention of neurasthenia in the 1883 edition of *Quain's Dictionary of Medicine*, an article is devoted to the subject, in all modern works, on the principles and practice of medicine. Whether this opinion that man's nervous centres are changing is correct or not, there can be no doubt about the fact that during the last 40 or 50 years the agencies acting on those centres have increased in number very materially.

According to the 1894 edition of *Quain's Dictionary*, the term was introduced by Dr. Playfair in 1881, and spoken of as "nervous exhaustion."

The word neurasthenia is applied to a group of symptoms resulting from debility or exhaustion of the nerve centres.

Another definition is that it is a mixture of mental and bodily disorder and irritability, generally the product of weakness.

STATUS LYMPHATICUS.

Sudden death from heart failure is often associated with the condition known as "status lymphaticus." It usually occurs in children, and is characterised by overgrowth of the tonsils and abdominal and mediastinal glands. The thymus also remains enlarged. The administration of an anæsthetic is by no means the only cause of death in this condition, as it has been known to follow the hypodermic injection of anti-diphtheritic serum, sudden plunging into cold water, and such minor ailments as bronchitis. It is usually only discovered after death, but if it is suspected, the greatest care must be exercised in administering an anæsthetic, since the lethal dose is usually very small in such patients. Ether should be given, and for choice by the open method.

THYMAS GLAND.

The thymas gland is situated behind the sternum and

overlying the large blood-vessels and pericardium (the bag containing the heart). It is of considerable size in the embryo and in the infant. In the second year of life it undergoes fatty degeneration and atrophy, and disappears in the adult. In the calf and the lamb it is called the sweetbread. The thymas gland is commonly known amongst butchers as the "throat bread." The pancreas, or abdominal sweetbread is the article which would be supplied in the great majority of cases by butchers asked for the sweetbread.

OPERATIONS OF GREAT BENEFIT TO HUMANITY UNDERTAKEN DAILY.

ADENOIDS.

WE now hear very frequently of adenoids, or adenoid vegetation, in the plarynx, which cause nasal obstruction, although little was said about them 50 years ago. There is no mention of them in the edition of the standard work on surgery by Sir Thomas Bryant of Guy's Hospital, which was published in 1878, but there is a good account of their nature and treatment in the 1894 edition of the *Science and Art of Surgery*, by Sir John Eric Erichsen, Surgeon to University College Hospital.

At the Preston Infirmary there was one operation for their removal in 1901, 12 in 1903, 52 in 1910, 80 in 1913, and 159 in 1914.

The classical description of adenoids was given by William Meyer of Copenhagen, who first described their clinical importance. Speaking of treatment, he says, "I am not aware that any internal remedies are able to check their growth. Iodine naturally suggests itself, but I have never deferred the safe surgical treatment for the administration of uncertain internal remedies." The operative measures which he suggests are cauterisation with solid nitrate of silver, and crushing and scraping off the tumours as near their base as possible.

Sir John Erichsen says the symptoms are for the most part the result of the obstruction to nasal respiration, and are thus identical with those produced by chronic enlargement of the tonsils. The two conditions are indeed frequently associated, and in any case of enlarged tonsils in which signs of nasal obstruction are pronounced, the presence of adenoids should be suspected.

Adenoids, if neglected, often cause post nasal obstruction, deafness, and enlargement of the cervical glands.

In children, in the course of their growth, adenoids give rise to what is called the adenoid face. The face is lengthened, the alœ nasi are collapsed, the upper lip is short and retracted, the mouth is kept open, and a vacant expression is thus acquired. Pigeon breast and a high palatal arch are often present also. The mouth breathing is worse at night. In articulation the consonants M and N are badly pronounced because these sounds cannot be resonated in the nasal meatus. Laryngismus stridulus, nocturnal enuresis, stammering, epilepsy and infantile convulsions are said by some to be due to adenoids. Slight cases may be improved by breathing exercises, aimed at teaching the child to breathe through the nose.

APPENDICITIS.

Little was heard about appendicitis until 1902, when the beloved peace-making King Edward VII. became the subject of it. It is interesting to recall the terms in which the announcement was made in *The Times* newspaper of June 25th, 1902. It said: "The following official bulletins issued from Buckingham Palace yesterday were received at first with consternation and then with the profoundest grief and sympathy, not only throughout the British Empire, but in every civilised country in the world."

Buckingham Palace,
June 24th, 11-15 a.m.

The King is suffering from "perityphlitis."

His condition on Saturday was so satisfactory that it was hoped that with care His Majesty would be able to go through the Coronation ceremony. On Monday evening a recrudescence became manifest, rendering a surgical operation necessary to-day.

(Signed) LISTER, THOS. SMITH, FRANCIS H. LAKING, THOS. BARLOW, FREDERICK TREVES.

The operation was performed by Sir F. Treves.

The following was posted at Windsor:—

The King is going on very well, but will not be out of danger for 48 hours.

The disease from which the King is suffering is inflammation of the vermiform appendix and of the adjoining intestines of the lower bowels.

If everything goes well with the antiseptics employed, and if

there is no abscess, it is anticipated that the illustrious patient after four days might make steady progress towards convalescence, but after such an operation as he has undergone, it is not to be expected that the King will be able for much exertion in less than three months.

The trouble took the form of an internal abscess, the growth of which blocked the natural channel, and would have involved certain death if not speedily removed. Such operations invariably involve considerable risk, notwithstanding the progress of modern surgery. It is stated that as soon as the illustrious patient got over the anæsthetic, he asked for his son, and the Prince of Wales, who was permitted to see his father for a moment, was intensely relieved that the operation had been so successful. At a late hour the Press Association announced that the King appeared to be making unexpectedly good progress, and his Majesty's temperature was normal.

A medical correspondent made the following communication to the Press :—

Where an internal abscess has formed, caused by perforation either of the bowel or the vermiform appendix, and has thus admitted material from the bowel into the abdominal cavity, and peritonitis occurs as a sequence, the gravity of the disease is much increased.

Appendicitis is now recognised as one of the most frequent causes of peritonitis. Indeed the certificate of the cause of death in a great many cases which were said to be peritonitis ought to have been (1) appendicitis, (2) peritonitis. It is a melancloly reflection that a great number of persons who are alleged to have died from peritonitis would be still living if their illness had occurred since the operation for appendicitis was established. In April, 1867, I attended a gentleman aged 33 who died from what I diagnosed as peritonitis, after a few days' illness. He was one of Her Majesty's Inspectors of Schools, and had been a Senior Wrangler at Cambridge. I made a post-mortem examination and found perforation of the appendix in two or three places, and fœcal matter oozing from them. He had always been a strong and healthy man, and if the operation which is now saving so many lives had been available in 1867, his life would probably have been prolonged for many years

of useful activity. In December, 1868, I attended another gentleman, also aged 33, who was taken suddenly ill on the Thursday before Christmas Day, and died at 3 a.m. on Sunday, December 25th.

In this case also I found three perforations of the appendix on the site of softened tubercles. As the lungs also contained tubercles, the probability of recovery after an operation was considerably reduced. A very remarkable circumstance in connection with this case is worth mentioning. I called into consultation the night before the patient died one of the most eminent surgeons in the North of England, and he wished me to inject into the patient's rectum an infusion, made according to a prescription, of which the following is an exact copy :—

Common Shag Tobacco	...	50gr.
Boiling Water	... ...	15oz.

Infuse for half an hour, cool and strain.

Three drams to be used as an enema every half hour till symptoms of collapse arise.

As the patient was rapidly growing weaker, I did not venture to adopt the suggestion, and I was very thankful that I had exercised the discretion dictated by the consideration of "wait and see." After vomiting some blood, the patient died about four hours after the eminent consulting surgeon left the house. I have read of cases of obstruction of the bowels treated by injection of infusion of tobacco into the rectum, under the impression that the production of faintness by this means would relax muscular spasm.

Sir Samuel Wilks has called attention to the fact that the disease existed and was recognised long before the term "appendicitis" was applied to it, and he has shown that Dr. Addison described "cœcitis" or "typhitis" in his regular course of lectures on medicine at least as early as 1836. Very little has been added since, except that which relates to bacteria and surgical treatment. Moreover, the distinct share of the appendix in the causation of the disease was recognised, although it was not credited with quite so much responsibility as we are now inclined to ascribe to it.

In the *Index* to Sir Thomas Watson's *Lectures on the Principles and Practice of Physic*, which was the standard work when I was a medical student, neither in the 1857 edition nor in that of 1871, does the word cœcum or appendix occur, but in *the chapter* which enumerates the causes of peritonitis there is the following passage :—

> It is a curious fact that the vermiform process of the cœcum is not infrequently the seat of a penetrating ulcer. I have traced little groups of glands in that slender tube, and I have known perforation to happen from the specific ulceration of typhoid fever; and from the accidental ulceration caused by a cherry stone lodged there in one instance, and by a pellet of hard fœcal matter in another. The last-mentioned cause is not of infrequent occurrence.

I and others can recall, and it is a painful reflection, many patients who were undoubtedly suffering from appendicitis, although we were not aware of the fact, and whose lives would probably have been saved by the operation which is now so frequently and successfully performed in all parts of the world, and at all hours of the day and night. An American surgeon who is in favour of an early operation says :—

> The affected appendix is a cap which sometimes snaps, sometimes flashes, and sometimes causes an explosion, and none of us can tell in advance what is going to happen.

The fact that the appendix may progress to the stage of gangrene and suppuration with very few symptoms, and that it is so difficult to ascertain without operation the extent of the danger, have led to the conviction that the removal of the appendix should be undertaken whenever there is a certain or highly probable diagnosis of appendicitis.

GALLSTONES.

Few operations are more beneficent in their design, or more successful in their result, than those which have been undertaken for the removal of gallstones. The lives of those who are liable to attacks of biliary colic, which cannot be prevented by medical treatment, are rendered miserable by the constant fear of a return of their trouble. Sir Thomas Watson says :—

> The pain which attends the passage of a gallstone is often

dreadful. Perhaps there is no pain to which the body is subject which is more severe. You will not wonder at this when you consider that through a tube, of which the natural size scarcely exceeds that of a goose quill, there sometimes passes a stone as big as a walnut.

The most simple and uncomplicated form of the operation consists in incising the abdominal wall, opening the gallbladder, removing the gallstones, and stitching the edges of the gallbladder to the abdominal wall, leaving a fistula which heals within a few weeks. This, like many other operations, could not be undertaken with safety before the adoption of the aseptic method of treatment.

Before the operation for gallstones was introduced, the external appliances employed were the warm bath, hot fomentations to the epigastrium, the mustard poultice, and the turpentine stupe. The late Dr. Heberden said :—

The pain can only be assuaged by giving and repeating opium and its preparations as often as the continuance of the pain requires them, and because this pain is very apt to return, the patient should always be advised to keep by him, as long as the distemper lasts, pills of pure opium—or what is equivalent to them—that no time may be lost in quieting a sensation which it is difficult to endure. One of these pills may be taken as soon as the pain comes on, and it may be repeated once or twice in the course of two hours if the pain requires it. A better plan still is that of implanting an equivalent quantity of morphia into the subcutaneous tissue. Dr. Prout states that he has seen more alleviation afforded by large drafts of hot water containing carbonate of soda in solution (one or two drachms to a pint) than by any other means.

This plan of treatment is still adopted in the earlier attacks of the complaint, before it has been decided to remove the gallstones by operation.

GYNŒCOLOGY.

The dictionary definition of gynœcology is, "The science and therapeutics of diseases of woman," the knowledge and medical and surgical treatment of diseases of woman. There is no department in medicine or surgery in which a greater advancement has been made than in gynœcology. Before I went to King's College, London, in 1855, I was a pupil for two years with a medical man who had one of the best and most select practices in Preston, and it is interesting to recall some of my experiences during that time. The

gynœcologists of to-day, and even ordinary medical men, will be surprised to hear that in a case of uterine hæmorrhage no attempt was made to ascertain the cause, such as is now incumbent on all medical men. The treatment of the cases consisted in giving ergot of rye, gallic acid, and tincture of perchloride of iron. A few years after I had commenced practice in 1858, I met with a case which had a very important bearing on the subject which I am considering. I was requested by a lady occupying an important position in the district, to visit a poor woman who was said to be dying from hæmorrhage caused by cancer of the uterus. She had been attended in succession by four medical men, not one of whom had made a vaginal examination. The house was very dirty, the smell of the room sickening, the bed and clothing filthy, and the death-like appearance of the face very saddening. She had been abandoned by the last doctor under the impression that nothing more could be expected from him but a certificate stating the cause of death. It is evident that this, like myriads of others, the falsity of which has been disclosed by post-mortem examination, would have been perfectly untrue. On making a vaginal examination, I found a polypus, the size of a jargonelle pear, protruding from the uterus, and attached to its inner surface by a well-defined pedicle or stalk. I had the poor woman removed to the Preston Infirmary, and I divided the pedicle with a pair of scissors, the polypus was easily removed with a pair of forceps, the bleeding ceased, and the poor woman lived for many years afterwards in the enjoyment of good health. The successful treatment of this case was one of the greatest pleasures of my life at this period of my career, and the recollection of it has furnished me on many occasions with very gratifying reflections. Bearing in mind that in 1855 the only two affections of the female organs of generation recognised by general practitioners were leucorrhœa and uterine hæmorrhage, it is interesting to read the classification of diseases of the generative system given in the "Nomenclature of Diseases," issued in 1906, and regarded as the standard work. It was compiled by a joint committee, con-

sisting of representatives of the Royal College of Surgeons and the Royal College of Physicians. I have seen it stated that the first scientific arrangement of the diseases of woman, in the English language, was given by Lawson Tait, of Birmingham, in 1877.

1. Diseases of the ovary.
2. Diseases of the fallopian tube.
3. Diseases of the uterine ligaments and of the adjacent peritoneum and connective tissue.
4. Diseases of the uterus, including the cervix.
5. Diseases of the vagina.
6. Diseases of the vulva.
7. Functional and symptomatic disorders of the female organs of generation.

LAPAROTOMY.

In these days, when so many people are knocked down and run over by motor omnibuses, motor cars, bicycles, and motor cycles, serious internal injuries are often sustained which render it necessary to make an incision through the soft parts between the ribs and the hips, or in other words to do a laparotomy for the purpose of exploring the contents of the abdomen. Before the days of aseptic surgery, this procedure would have been regarded as an unjustifiable one. Since its adoption, however, tears in the stomach, intestine, bladder, and other organs have been stitched up, so as to prevent any further escape of their contents into the peritoneal cavity, and in this way many lives have been saved which would otherwise have been lost. Death from internal hæmorrhage has also been prevented by discovering the bleeding vessel and ligaturing it. It is a very wonderful indication of the advance which has been made in operative surgery since the aseptic method of treatment was adopted, that cases are on record in which the entire stomach has been removed successfully, and that it is now no uncommon occurrence to remove the kidney, spleen, gall bladder, prostate gland, and uterus; to suture a perforating ulcer of the stomach, duodenum, and other portions of the intestine;

to excise a diseased part of the intestine, and to unite the proximal and distal ends by suture. It has now even been undertaken to open the skull and remove a tumour from the brain, and to open the spinal canal for the removal of tumours from the spinal cord.

An American surgeon is said to have succeeded in transplanting the limb of one animal on some other animal, and in the transference of vital organs, such as the kidney, from one animal to another. We live in an age of wonders, and it will not be surprising if what has already been done for certain of the lower animals may be accomplished for human beings.

OVARIOTOMY.

Ovariotomy was one of the surgical measures from which the mortality was so great before the aseptic method was adopted that it had to be given up, but since its introduction it has been undertaken again and performed with such remarkably successful results as to make it clear that the aseptic method of treatment was the one thing needful to complete the usefulness of chloroform. The number of females who have not only been rescued from certain death by the operation of ovariotomy, but have been restored in the course of a few weeks to perfect health, is one of the most startling facts in the history of operative surgery.

At a meeting of the Medico-Chirurgical Society in London, in 1850, the eminent surgeon, the late Sir W lliam Lawrence, denounced the operation as perilous both to the patient and to the character of the profession.

In February, 1871, Mr. Spencer Wells had performed the operation 408 times.

Sir Thomas Watson considered ovariotomy one of surgery's greatest triumphs. He said you may estimate its value by contrasting the good prospect which it holds out of perfect and permanent recovery on the one hand, and the almost certain destruction of life within a few years at the longest, with miserable suffering towards the end, on the other. In the light of our present knowledge, it is interest ing to read what Sir Thomas Watson said in 1871 :—

When we have the opportunity of treating ovarian dropsy from its commencement, we sometimes find that the enlarging ovary is painful or tender. I have treated such cases assiduously with the remedies of chronic inflammation, frequent topical bleedings and the use of mercury till the gums were affected; with the remedies of ordinary dropsy, diuretics and drastic purgatives; and with remedies accounted specific; liquor potassæ and the various preparations of iodine; and I must honestly confess to you that I am unable to reckon one single instance of success. Yet these are the measures, if any, that we are bound to try: never further than they can be carried without serious or permanent damage to the general health of the patient. They have succeeded, as we are assured, by competent and credible witnesses; they may therefore succeed again. The amount of my own experience, however, has led me to the belief that medicine has in general very small influence over the progress of this disorder. The cases that do well, we scarcely know how or why; the cases that prove fatal run their course in spite of us.

PROSTATECTOMY AND ENLARGEMENT OF THE PROSTATE GLAND.

The prostate gland is at the neck of the bladder, where it joins the urethra. In many men it never gives any trouble. In some the gland increases in size, from two to fourteen times its natural bulk, and becomes hardened. The increase may be but slightly above the ordinary chestnut size of the gland, or it may render it as large as a man's fist, or larger. The enlargement may affect the whole organ, especially the lateral lobes, pretty uniformly; or it may affect one side more than another; or it may affect the posterior portion, enlarging it into what is commonly called the middle or third lobe; a lobe, which, according to the late Sir Henry Thompson, is purely the result of unnatural enlargement and does not exist in health. The consequence of this is a projection at the part where the bladder joins the urethra, causing a most serious impediment to the passage of the urine.

The symptoms associated with an enlarged prostate vary from mere inconvenience to suffering so severe as to make life undesirable.

Before the operation for the removal of the gland was undertaken, the most important part of treatment was the use of the catheter twice a day, which was not only a great nuisance, but sometimes the passage of it was attended with difficulty and danger.

By the modern method of removing the gland by a surgical operation, the sufferer is able to dispense with the use of the catheter, and to enjoy an existence which is a great contrast to that which he previously experienced, and to lead a useful and active life.

There was some animated correspondence in the *British Medical Journal* in October, 1921, in reference to the claims made by the friends of the late Sir Peter Freyer, that he was the deviser of the operation of suprapubic prostatectomy and the removal of the prostate by enucleation by the finger and not by cutting.

Sir Clifford Allbutt and Messrs. Littlewood and Wilcox, however, have proved conclusively that the distinction is due to the late A. F. McGill, Professor of Surgery and Surgeon to the General Infirmary at Leeds. He described at a meeting of the British Medical Association at Leeds on August 18th, 1889, that he had already successfully performed the suprapubic operation, and he laid great stress on the fact that the mucous membrane was incised with scissors and the enucleation carried out with the finger, and that it was better to operate by a suprapubic than by a urethral or perineal route. In an adjoining room there was the astounding and unique spectacle of seven or eight old men sitting on a bench with their prostates in bottles on their knees. Each patient had a card attached to him setting out briefly the clinical history of his case. Sir Clifford Allbutt and Messrs. Littlewood and Wilcox give Sir Peter Freyer credit in the following terms :—

> As aseptic surgery was elaborated his judicious boldness urged its performance at earlier and earlier periods of prostatic disorder, and so under less and less adverse conditions. Thus insistently and successfully he brought the method into general acceptance, and achieved a great work for which he will be remembered as one of the benefactors of mankind.

McGill pointed out that Belfield, of Chicago, had performed the operation in May, 1886.

In reference to prostatectomy, Rose and Carless say :—

> The operation, however, is not unaccompanied by danger, and if the patient can easily pass a catheter for himself, and is free from any other complication, it seems hardly justifiable to submit to an operation which may prove fatal.

Mr. R. H., an elderly man, who had for several years been afflicted with prostatic trouble, was persuaded by me to go to London and consult Mr. Reginald Harrison in reference to the desirability of undergoing prostatectomy. Mr. Harrison advised him strongly to submit to this form of treatment, although he was a very stout man and was very nervous, and engaged rooms for him at a nursing home in Devonshire Street. As I was anxious to see the operation, which was to me a new method of treatment, Mr. Harrison kindly consented to operate at nine o'clock on Sunday morning in order to give me the opportunity of attending the service at the Foundling Hospital Chapel in Guildford Street, which had been my favourite place of worship when I was a student at King's College. I went up to London on Saturday evening and returned on Sunday. I took with me as a guest my friend the late Dr. J. E. Garner, who was very anxious to perform the operation at the Preston Infirmary and to be better prepared for doing so. Notwithstanding that the patient was a bad subject for an anæsthetic, all passed off well. Mr. Reginald Harrison did the laparatomy and Mr. Thomson Walker the prostatectomy.

The man left Preston with nothing before him but a painful and miserable existence ; he returned in good spirits, perfectly cured, and for many years after led an active, useful and comfortable life. Dr. Garner and I went to both the morning and afternoon services at the Foundling Hospital. At the latter we sat in the loft with my friend Dr. Wetton, the organist.

TUBERCULOUS GLANDS IN THE NECK.

I remember the time when I used to meet people in the street whose faces presented evidence of having had small pox. They were said to be pock-marked, and the marks consisted of little pits or holes left by the scar of the healed small pox pustule. Such faces were also deprived of what may be called "The roseate hue of health," owing to the destruction of some of the minute blood-vessels supplying the skin. It is now very many years since I saw a pock-

marked person. For the disappearance, or comparative rarity, of small pox, we are, of course, indebted to the blessing of vaccination. I still meet with children and young persons whose necks are disfigured by enlarged glands and ugly, red-coloured puckered scars, the existence of which causes great anxiety and worry to parents and much weeping on the part of some of the children, especially young girls. The administration of iodine in its various forms with iron and cod liver oil, and change of air to the seaside, or a dry, bracing atmosphere, and the outward application of iodine, good food, good clothing, are still regarded as important aids to the prevention and cure of enlarged glands in the neck, but within the last few years it has become the practice, in cases considered suitable, to remove the glands with the knife, and, therefore, instead of the ugly, puckered, discoloured scars and enlarged glands, to have merely the line of the incision, which may be almost unnoticed.

Tuberculous glands in the neck for several centuries were called "King's Evil," and were formerly supposed to be cured by the King's touch. The first English King who touched was Edward the Confessor in 1058. In the reign of Charles II., 92,107 persons were touched, and according to Wiseman, the King's physician, they were nearly all cured. Queen Anne officially announced in the *London Gazette*, 12th March, 1712, her intention to touch publicly. The custom was dropped by George I., 1714. In the reign of James II., 1684, the remedial power of the King's touch in cases of evil was firmly believed in by others than the vulgar, for it appears the Corporation of Preston voted the sum of five shillings each to two poor women afflicted with this disease towards the expense of travelling to Chester to avail themselves of the supposed potency inherent in Royal fingers. This absurd superstition was not entirely discountenanced till the reign of George I., 1714. It is on record also that the Corporation of Preston also paid ten shillings to a bricklayer to take his son to London to be touched for King's Evil in 1684. It is said that in the time of Edward the Confessor, Royal healing for scrofula was

looked upon as something of a novelty compared with the practice in France, where at an earlier period it was an established custom.

Until about 1860, the treatment of suppurating and caseating glands in the neck consisted in little more than the application of poultices and iodine paint. The first note of the change which was beginning to revolutionise the practice of the physician and the surgeon in this disease was struck by Professor Clifford Allbutt in a paper at the International Congress of Medicine in 1881. This paper was followed up by the publication, in 1885, of a clinical lecture by Professor Allbutt and Mr. T. Pridgin Teale, who was one of my fellow students at King's College, in which further experience of the operation was set forth.

Rushton Parker, of Liverpool, was early in the field as an advocate for operative treatment of cervical glands. In 1872 he wrote an article in the Liverpool and Manchester Medical and Surgical Reports with the title of "Extirpation of tuberculous lymph glands."

It is rather curious to observe that John Browne, who was surgeon in ordinary to Charles II, while upholding the Royal prerogative of touching for the disease and praising its efficacy, really anticipated the surgical treatment of tuberculous glands, as carried out by Pridgin Teale, and others, who were regarded as the pioneers of this method. His method was extirpation and removal, the only difference being the after treatment.

He has much to say regarding the Royal touch :

> I have been oft conversant and attending at many of these laudable operations, having waited upon his sacred person, both at public and private healings, as one of his meanest chirurgians, where I have seen many thousands of poor souls touched and cured by his sacred hand.

With regard to this remedial power of the Sovereign being firmly believed in, there are abundant proofs. Browne himself affords one, for he was one of the surgeons who examined and prepared the patients at the ceremonies for healing. Wiseman himself recorded that the King cured

more in any one year than all the surgeons in London did in an age, and the College of Physicians itself reported on the case of a man who claimed to possess this Royal power of healing, and pronounced him an imposter, which leaves one with the inference that the College recognised this Royal power to healing. Browne's book, in which he summarises cases to prove the efficacy of the Royal touch, received the imprimature of the College.

THYROIDECTOMY.

The thyroid body is composed of two oval bodies which are situated in the neck, one on each side of the windpipe, and are connected together by means of an isthmus, or narrow strip, which crosses its upper rings. Frequently one lateral lobe is larger than the other, and occasionally the middle lobe, or isthmus, is solely or principally affected. The enlargement is called bronchocele, goitre, or Derbyshire neck. Sometimes the enlargement continues until it causes difficulty of breathing by its pressure on the windpipe, and difficulty in swallowing by compressing the œsophagus, and it impedes the circulation of blood in the head and neck by pressure on the blood vessels. In cases where this happens, an operation becomes necessary to remove the whole or a portion of the gland. The modern operation of thyroidectomy is a great improvement on that which was originally undertaken, and which consisted in removing the whole of the gland. Total extirpation results in myxœdema, but as long as a sufficient portion of the secreting substance is left, whether it is derived from the isthmus or one of the lobes, this evil does not result. Myxœdema is a disease in which the thyroid body is atrophied, and the connective tissue of the skin, liver, kidneys, and the other organs are partly converted into a mucous or gelatinous substance. Where the enlargement is not very considerable, the internal administration, or external application of iodine, and other medical treatment, is the usual course. It is known that all sufferers from myxœdema have atrophied thyroid glands. If a preparation of sheep's thyroid is given to patients suffering from myxœ-

dema, all the symptoms usually disappear in about six weeks, although the patient's thyroid remains atrophied. The effect is one of the most striking experiences in medicine. It is known that human beings whose thyroid is excised become myxœdematous, and that all sufferers from myxœdema have atrophied glands.

A patient of mine who lived in a neighbouring street had an enlargement of the thyroid gland, which, during four years, gradually increased in size until it compressed her windpipe, and the blood vessels, and nerves, and muscles of her neck to such an extent that she could not lie down in bed without producing a sense of suffocation, and this feeling was also produced by raising her arms. Extirpation had for some years been practically abandoned on account of the alarming bleeding which was associated with the operation. With improved methods, however, it was at this time again undertaken with encouraging success. As my patient's life was a very painful one, and she was in danger of suffocation, I succeeded in persuading her to go to the infirmary, where partial extirpation of her thyroid was adopted by my friend and neighbour, Dr. Collinson. This occurred 15 years ago; she is now 70 years of age; she can walk briskly and a considerable distance, and she is leading a happy, healthy, and useful life.

Thyroid Gland.

At one time it was believed that the thyroid gland poured a secretion into the blood, the nature and purpose of which was unknown. It is now thought :—

(1) That it exercises a powerful influence or control over the development and destruction of cells which is constantly going on within us from the time of our birth to the hour of our death.

(2) That it breaks down exhausted cells and governs the elimination of the waste products of their disintegration.

(3) That it defends the body against invasion by disease-producing organisms and injury by their products.

(4) The administration of thyroid gland leads to a gradually increased oxidation of all the tissues, and rapidly reduces the bodily weight.

Formerly the advice usually given was :—"So long as the disease is merely a deformity, so long as it does not interfere with any of the important functions of the body, nor produce serious discomfort, the surgical operation for the removal of the thyroid gland is not recommended by most authorities." At one time extirpation was regarded as exceedingly difficult and dangerous as the arteries are so much dilated in these cases that perilous hæmorrhage might be expected from their division, especially when in close proximity to the caroted arteries.

In one case where excision was attempted, the hæmorrhage was so alarming that the surgeon was obliged to desist in the middle of his task, and the patient actually died of hæmorrhage a few days afterwards. The operation was wholly abandoned by surgeons until the improved methods adopted to-day came into use.

Twenty years ago a lady friend of mine who also suffered from the pressure of an enlarged thyroid gland, underwent the operation of thyroidectomy shortly after the dread of excessive bleeding had been removed by improved methods of operating. She was able to leave the nursing home at the end of a month, and ever since has enjoyed excellent health.

TAPPING THE CHEST.

The operation of tapping the chest, which is now performed so very frequently, must have been a somewhat unusual occurrence ten years before the introduction of Lord Lister's principles. Writing in 1857, Sir Thomas Watson, one of the most eminent physicians of that day and a colleague of Sir William Ferguson, said :—

> On six occasions I have myself witnessed the evacuation by puncture from the human pleura of a clear, transparent liquid. Three of the patients recovered, and three died. Again I have twice seen pus let out by the primary puncture of the chest. One of these recovered, and the other died. This constitutes the amount, or nearly so, of my personal experience of paracentesis thoracis.

When I see fluid let out of the chest with the beautiful aspirator and similar appliances, I recall the only occasion on which I saw paracentesis thoracis performed at King's College Hospital. It was in 1858, and the patient was under the care of Dr. George Budd. The fluid was conveyed not through an india-rubber tube into a basin, but through a piece of chicken's intestine, the distal end of which rested under the surface of water contained in a bucket.

REMOVAL OF LOOSE CARTILAGES FROM THE KNEE JOINT.

Since football became such a popular game, this operation is very frequently performed.

If each footballer who has had a loose cartilage removed from his knee joint were to write a few lines expressing his gratitude for the relief which he has obtained, and if these testimonials were sent to a central office to be entered in a book, the record for even 12 months only would be a very voluminous and impressive one.

The symptoms caused by this condition are produced by the loose body being occasionally caught between the articular surfaces of the femur and tibia, leading to a temporary locking of the joint, and severe pain owing to the stretching of the ligaments. The pain is sometimes momentary, but sometimes continuous until the painful locking of the joint has been removed by manipulation either with or without an anæsthetic.

INSTRUMENTS USED IN THE INVESTIGATION OF DISEASE.

MOST people are familiar with many instruments and appliances for the investigation and treatment of disease which are in daily use at both special and general hospitals, but there are others of great usefulness which are not so well known. A few remarks on the clinical thermometer which were made by Sir Thos. Watson soon after it came into use, about the year 1862, are of great interest.

THE CLINICAL THERMOMETER.

According to Sir Samuel Wilks the instrument did not come into general use until about the year 1860. He says:—

> I requested the Superintendent at Guy's to procure a clinical thermometer. . . . . I think it was nearly a foot long and was so great a novelty that it was taken to a South-Eastern meeting of the British Medical Association for exhibition, where the members regarded it with much curiosity and interest, although, I am sorry to say, one or two with ridicule.

Dr. Archibald Arnott is said to have used a thermometer while attending Napoleon in St. Helena in 1821.

Dr. Wunderlich, Professor at Leipzig, wrote the first important and practical treatise on the subject. This was reviewed by Sir Clifford Allbutt in the *British and Foreign Medical Review*, vol. 45, 1870, in which he says :—

> The first clinical thermometers made in this country were those of Casella under the direction of Dr. Aitken, and for hospital purposes they cannot be improved. They are, however, too cumbrous for general practice. . . . I hope it is no undue presumption on my part to please myself with the notion of having had a share in introducing the thermometer into general practice. . . . I applied to Casella, but he had no pocket thermometers, and seemed indisposed to make any. I therefore set to work with Messrs. Harvey & Reynolds to manufacture one.

Writing in 1871, Sir Thomas Watson says:—

> What is called the thermometry of disease is a subject upon which, within the last few years, much new light has been thrown, and about which a very lively interest has been re-excited. The measures of temperature of the body were heretofore altogether vague and imperfect, having been furnished either by the subjective

feelings of the patient himself or by the objective tactile feelings of the bystanders, both of which are not only wanting in precision and accuracy, but apt to be even fallacious and deceptive. Yet we all know from the use of that familiar instrument, the thermometer, that degrees of heat are capable of being expressed numerically and therefore with absolute accuracy. What was so long needed for giving exactness or scientific value to the varying temperature of the human body in fevers, was some method whereby the exact degree of its heat from time to time might be ascertained and recorded, and such a method has now been realized. Analysis of the record obtained by thermometry brings to light a series of fixed laws by which the varying degrees of the bodily temperature are regulated : laws which are seen at once to be profitable for the diagnosis, the prognosis and the treatment of febrile disorders. You may thus learn to what species of fever a given case belongs ; the stage which it has reached, whether it is running its natural course ; to what mode of termination it is tending ; may test the efficacy and value of therapeutic measures and discriminate between real and only seeming convalescence. The importance of such information is great and obvious ; and (unlike the methods of auscultation and palpation) this method demands no previous or special education of the senses ; all that is requsiite being carefulness, patience, and clear eyesight.

I obtained my first clinical thermometer about the year 1862. It was made by Casella, and was in a mahogany box. It had to be read whilst the bulb was in the arm-pit, as there was no register, and a temperature above normal began to fall as soon as it was withdrawn. I gave the above to the Harris Free Library and Museum.

We owe the great service in the study of disease which the clinical thermometer has conferred upon us to Dr. Wunderlich, of Leipzig. It came into use several years after I had commenced practice, and its value was pointed out by Sir Clifford Allbutt, the Regius Professor of Medicine at Cambridge and previously a consulting physician at Leeds. Its unreliability in inflammation of abdominal organs was impressed upon me by a case which came within my own experience. I was asked to make a post-mortem examination of an old gentleman who died from malignant disease of the lower part of the colon, the rupture of which I discovered had set up acute peritonitis. The patient had either suffered little inconvenience until the accession of the peritonitis, or he failed to complain of any. Shortly after the clinical thermometer came into use, Sir W. Roberts, of Manchester, one of the most powerful advocates in this neighbourhood for the

use of the thermometer, was summoned by the gentleman's medical attendant to give his advice and assistance. Sir William surprised the local doctor, who had diagnosed peritonitis, by saying that he was sure there was no peritonitis, as the thermometer showed that the temperature was normal.

THE STETHOSCOPE.

In 1816 Laennec, of Paris, by rolling a piece of paper into a kind of cylinder, and applying one end to the patient's chest and the other to his own ear, perceived the action of the heart in a much more distinct manner than by the immediate application of the ear. This led to his inventing the stethoscope, or breast explorer. The principle of this was known by Hippocrates (357 B.C.) and by Robert Hooke, 1681.

"LOSTOCK HALL" CONVALESCENT HOME

MODERN INSTRUMENTS.

NOT the least wonderful are some of the modern instruments used for the direct inspection of the bronchi, œsophagus, stomach, and bladder. These instruments are illuminated by means of a small cold electric lamp at the distal end. The lamp slides along a fine tube which protects its entire length.

THE HÆMACYTOMETER.

It will surprise many people to know that there is an instrument called the hæmacytometer to count the number of red and white corpuscles in the human body.

THE HÆMOGLOBIMETER.

There is also another called hæmoglobimeter for estimating the extent of departure from the natural amount of colouring matter in the blood. The information thus gained is of great importance in such diseases as anæmia, chlorosis, leuchœmia, malaria and pernicious anæmia.

THE PULSE.

When I began practice, the points which I had been taught to observe were the number in the minute, the volume, the force or resistance, the beat occurring at regular or irregular intervals, intermission or missing of beats, the special character as in some forms of heart disease, and the effect of posture.

THE SPHYGMOGRAPH AND THE SPHYGMOMANOMETER.

In relation to the pulse there are two valuable instruments called the sphygmograph and the sphygmomanometer, the former for tracing on paper the beating of the pulse and the other for recording, with mathematical pre-

cision, the strength of the beats and so indicating whether the pulse is of high or low tension.

THE SCOLIOSIOMETER.

Another useful instrument which is not generally known is the scoliosiometer. Scoliosis is a term applied to lateral curvature of the spine, and the scoliosiometer is an instrument for accurately measuring the amount of deformity of all forms of asymmetry, as well as spinal. It is found of service in the investigation of fractures and dislocations, in comparative measurements of opposite sides of the thorax and abdomen, as in cases of thoracic and abdominal tumours, or any unilateral bulgings from pleural collections, contraction changes following these, unequal muscular development, in obtaining a reliable register of chest measurement, and expansion for recruit examination and insurance work, and lastly in craniometric work.

THE ELECTRO-MAGNET.

We have recently added to our equipment at the Preston Infirmary a very powerful electro-magnet for the extraction of particles of metal from the eye. Previously, as the magnet which we possessed was not sufficiently powerful, we had to send many cases to the Manchester Eye Hospital. As there was thus an unavoidable interval between the receipt of the injury and the arrival of the man at the Manchester Eye Hospital, the delay often resulted in the loss of the eye.

TREATMENT.

DURING everyone's lifetime there are days and years when events occur which are recorded in the memory and are recalled easily by some people and with difficulty by others, or the remembrance of them comes into the mind spontaneously. The occurrence is often associated with some date such as Christmas Day, or Easter, or Whit-Monday, or with a pleasant or painful experience of some sort. A few days ago I read a paragraph in the newspaper stating that much amusement was caused to a judge and the people in a court of justice by the reply of a witness to the question, " How do you manage to fix the date of the occurrence so accurately ?" His answer was, " Because it happened on the first Sunday in the month, and I always have my bath on the first Sunday in the month." In my own lifetime there have been what I may call certain " Milestones," the reflections on which have added very much to the interest and enjoyment of my life. My " Milestones " may be divided into two classes—those which are directly associated with my own profession and those which are not. It is, however, impossible to draw a distinct line of demarcation between the two. Some of the most important of my " Milestones " are : 1836, the year in which I was born ; 1846, when ether was discovered ; 1847, chloroform ; 1867, the aseptic method of treatment ; 1882, the tubercle bacillus ; and 1895, the X-rays.

There is not a more interesting occupation for the mind of a medical man who has been 50 years in practice, than a consideration of the benefits which have resulted to humanity from the discovery of chloroform, aseptic method of treatment, the bacilli of tubercle, diphtheria, typhoid fever, tetanus, hydrophobia, and that all infective diseases are due to specific micro-organisms.

The discovery of the laryngoscope, ophthalmoscope, and other appliances and their usefulness in the investigation

of disease have led to the establishment of special hospitals for the treatment of diseases of the eye, ear, throat, nose, and other parts of the body. The importance of special hospitals has now been realised to such an extent that many of the general hospitals are providing separate departments within their enclosures. Some of the most recent additions are due to the more extensive use of light, heat, electricity and massage.

The number of diseases which in the early part of my career were treated medically, but are now cured by surgical operations, is constantly increasing. I could not bring forward a more striking illustration than that which is afforded by the common diseases, adenoids, appendicitis, etc.

SURGERY.

The progress of surgery and its auxiliaries, between 1836 and 1921, have conferred upon mankind benefits and blessings which cannot be too highly appreciated, although their great value is apt to be overlooked on account of our familiarity with them. A certain lady who is now a distinguished gynæcologist predicted that, in connection with her department, events would occur which would stagger humanity, and that if anyone had attempted to prophesy in 1836 that such operations as now came under the category of the surgery of the abdomen would be performed in 1921, he would have been regarded as a lunatic. I heard the late Sir W. Mitchell Banks tell his audience, at the opening of the Liverpool Royal Infirmary operating theatre by Sir F. Treves, October 10th, 1902, 20 years ago, that if in the earlier part of his career he had attempted to perform operations which he was then undertaking as a portion of his daily work, he would have landed himself in the hands of the police. The mention to him of such operations as gastro-enterostomy, or the removal of the entire uterus or the prostate gland, would have made him shrug his shoulders and use some of the impressive language with which his friends were familiar.

It is very interesting to recall a number of operations

which are performed daily in the Infirmaries of the United Kingdom : Adenoids, appendicitis, gynæcology, laparotomy, ovariotomy, prostatectomy, removal of loose cartilages from the knee joint, removal of gallstones, removal of tuberculous glands in the neck, thyroidectomy, tapping the chest.

BLOODLETTING.

Bleeding from the arm, or the external jugular vein, was becoming less and less frequent when I commenced the study of medicine. It is still occasionally employed with benefit when a patient is becoming cyanosed, that is, the face and more or less of the surface of the body of a blue colour and asphyxia is threatening either :—

(*a*) As a result of engorgement of the lungs from incompetency of the mitral valve owing to the heart being unable to drive the blood through all parts of the body, or

(*b*) As a result of some accident involving the chest wall and lungs, whereby the blood aerating surface is so diminished that it cannot deal with the blood reaching it through the right side of the heart, which hence becomes enormously distended and threatens to stop in a dilated condition

(*c*) Where inflammation of the brain is pending and the pulse is hard and full, or

(*d*) In a few inflammatory states in strong full blooded individuals where the pulse tension is high.

Rose and Carless, Manual of Surgery (1918).

This is the only mention in Taylor : " The withdrawal of blood to the extent of 10 or 12 ounces by an opening in the external jugular, or basilic vein, at once relieves the engorged condition of the right venticle, which can then contract efficiently on its contents."

Taylor's Practice of Medicine, 1914.

In the index the reader is referred to its employment in nearly 20 diseases. *Watson's Lectures,* 1871.

Bleeding from the arm once or twice a year was formerly a popular operation, but is now comparatively rarely practised. In the *Accounts of Accidents*, whatever the nature of the accident might have been, a stereotyped sentence that "A Surgeon came and bled the sufferer" might have been anticipated. If anything could extinguish the spark of life flickering after the shock of a severe accident, it must have been the senseless, unmeaning custom of bleeding, when perhaps brandy and water or ammonia were required. At one time in the country it was difficult to persuade people that bleeding was not required after an accident, and all bad consequences were attributed to the omission of the mysterious agency of bloodletting.

When Sir James Paget, one of the most eminent surgeons and pathologists, was an apprentice with a surgeon named Costerton at Yarmouth, 1830 to 1834, he writes:—

> Among the patients who came to the Surgery, not a few, especially women, came to be bled. For at that time there were many, especially among the country working people, who deemed bleeding once or twice a year a great safeguard, or a help to health. They came frequently on market days at the times of spring and fall, and generally did their day's work in the market and then walked to the surgery. There they were at once bled, and usually were bled till they fainted, or felt very faint and became pale; then a pad was put over the wounded vein, and a bandage round the elbow; and they went home, often driving three or four miles into the country. I have no recollection of any evidence that either good or harm was ever done by this practice.

TRANSFUSION.

An interesting item in connection with the blood is the transference of blood from one individual to another. It has, however, now been recognised that the success of the proceeding depends on the introduction of a sufficient quantity of fluid as a temporary substitute for the blood which has been lost, rather than on its quality. It has been proved that the transfused blood of another person is rapidly destroyed and eliminated. Hence transfusion has now in many cases been replaced by the infusion of some bland fluid, of equal tension with the blood plasma, and by this means greatly improved results have been obtained. A warm saline solution is the best, consisting of a dram of chloride

of sodium to a pint of sterilised water at a temperature of 105 F. to 110 F.

A few weeks ago *The Lancashire Daily Post* called attention to an appeal which had appeared in the Press from the London Temperance Hospital for persons who were willing to give a pint and a half of blood to a patient in the hospital, a woman aged 50 who was suffering from acute anæmia and was face to face with death unless she could obtain a supply of life fluid. Eight persons volunteered. The odds were considerably against a person having the right blood in her veins for transfusion, but "we hope to find one from the eight persons who have volunteered," said an official of the Hospital.

35 Volunteers.

A woman inmate of the Home for Friendless Women became seriously ill, and was sent to a Montreal hospital. The doctors, after an examination, decided that the only hope for her recovery was the transfusion of some one's blood. Every one of the 35 inmates of the home promptly volunteered, and the first transfusion was successfully made.

Transfusion Record.

Thomas Shaw, aged 26, known among the Philadelphia medical men as the "Blood King," has contributed (says the *Daily Express*) more than 21 quarts of blood in 26 transfusion operations. Shaw is a grocery shop assistant. He states that he has suffered no ill effects after parting with as much as a quart of blood, and this he attributes to his strict vegetarian diet, and to his drinking much water.

THE USE OF MERCURY IN PNEUMONIA, &c.

When I was a pupil with Mr. Thomas Dixon, from 1853 to 1855, it was his custom, and it was also the practice of contemporary doctors on meeting with a case of pneumonia or pleurisy, to prescribe some form of mercury, and to continue the use of it until the gums grew red and spongy ; the patient complained that his gums were sore, that he had a metallic

taste, like that of copper, in his mouth, and an unpleasant and characteristic odour in his breath. As people differed in their susceptibility to the influence of mercury, the soreness and other effects of the drug occasionally went further than was intended, and owing to the greatly increased secretion of saliva, the patients were said to be salivated, and the doctor had to submit to more or less censure.

The mercury was administered under the belief that it was a powerful agent in *controlling adhesive inflammation*, such as glues parts together and spoils the texture of organs. Sir Thomas Watson said in the earlier editions of his lectures, "The great remedial property of mercury is that of stopping, controlling, or altogether preventing the effusion of coagulable lymph; of bridling adhesive inflammation; and if we in our turn could always bridle and limit the influence of mercury itself, it would be a still more valuable resource."

With reference to pneumonia, Sir Thomas Watson says, "When the inflammation has reached the second stages, that of solidification, mercury ought to be administered. The object of it is to make the gums tender; and it is expedient to do this as speedily as may be . . . ."

Speaking of the treatment of pleurisy, Sir Thomas Watson says, "Mercury, from its well-known power to check the effusion of coagulable lymph, is especially indicated. Where there is evidence of effusion of fluid into the cavity of the pleura, the object of our treatment is to get rid of the fluid, and with this object in view we keep the gums tender with mercury."

It is very interesting to read the following remarks in Taylor's "Practice of Medicine," 11th Edition, 1918:—

> It is almost certain that no drug has any direct influence upon the *inflammatory* process as such, though much assistance may be obtained by influencing the *resisting* processes and supporting the heart in severe cases.

The following are the remedies employed in the treatment of pneumonia to-day:—

EXTERNAL APPLIANCES.

Linseed meal poultices, linseed meal poultices sprinkled

with mustard, hot flannels wrung out of turpentine, ice or ice between flannels.

MEDICINES.

Liq. amm. acet. or liq. amm. cit., or pulv. ipecac. co. (Dovers powder) to maintain a free action of the skin, remedies to procure sleep, to maintain the action of the heart, and oxygen gas to oxygenate the blood.

Excluding treatment on bacteriological lines, and by immune sera and bacterial vaccines and blood letting and the use of mercury, the treatment of pneumonia is much the same as it was 50 years or more ago.

DIET.

Regulations in reference to this subject were always part of the treatment of disease, but more precise rules are adopted in the present day based on the nature of the food suitable for particular cases.

DRUGS.

Fresh drugs are constantly being introduced, and many of the older ones still retained, *e.g.*, liq. amm. acet., liq. amm. cit., sp. œtheris. nit., sodii bicarb., sp. amm. co.

THE INTRODUCTION OF DRUGS.

The older methods of administration by the mouth and rectum, and friction with ointment and embrocations are still in use. Morphia, strychnia, cocaine, and others, by the subcutaneous syringe, are now introduced by hypodermic, intra musculæ, intravenous, and intraspinal injections. Medicines are also administered by ionisation. In this method decomposable salts, of which one or both of the component elements are efficient drugs, are applied to the skin and decomposed by a galvanic current, so that the nascent elements or ions are driven at once into the tissues and exert the desired effect.

ORGANO THERAPY.

Extracts of various organs of animals, thyroid, sup-

rarenal gland, pituitary body are given internally or per rectum or by subcutaneous injection, to supply defects in the corresponding organs in the human subject.

ANTITOXIC AND ANTIBACTERIAL SERA.

As in diphtheria, hydrophobia, tetanus, and typhoid.

BACTERIAL VACCINES.

A vaccine is a solution containing several million dead bacteria of the same species as those of the disease requiring treatment, and preferably cultivated from some obtained from the patient to be treated. For example, the expectoration of a chronic bronchitis patient and the discharge from the gums in pyorrhea are used. The injection of these bacteria increases the opsonic power of the patient's blood serum, and thus assists in the ultimate destruction of the bacteria causing the disease.

OPSONINS.

Bodies which act on the bacteria so that they are more readily digested by the leucocytes.

HEAT.

Besides the local application of warmth for purposes of stimulation or counter-irritation, and of heat for its destructive effects (cautery), radiant heat, by means of incandescent electric lights, is employed for the local treatment of rheumatic joints and allied conditions.

DIATHERMY.

A more recent method of applying heat locally. The heat is produced by continuously maintained high frequency currents, and in this form it penetrates more deeply into the part, *e.g.*, a joint, than any heat that can be borne, supplied by sources external to the limb.

LIGHT.

The general advantages of a bright sunny climate are

well known, and even in less clear climates it is of use, in some complaints, to expose the patient to bright sunlight whenever the opportunity offers. The Finsen light treatment of lupus and rodent ulcers consists in directing an intense light upon the diseased part for specific periods of time. The light consists of violet and ultra-violet rays, and is produced by an arc-light from which the heat rays are cut off.

ROENTGEN RAYS OR X-RAYS.

The powerful effects of these light-rays are well known, both for good and evil. Constantly playing upon the unprotected skin, as in the case of X-ray operators, they have caused intense and incurable dermatitis. Used with proper precautions for limited periods, they modify the growth of cells in the body, and have been of value in the treatment of rodent ulcer, cancer, enlarged glands, leukæmic spleen, syringomyelia, ringworm, and other affections. They cause a slow degeneration of the cells, acting more upon the pathological than upon the healthy cells. At a certain point vascular dilatation with extravasation of phagocytes occurs.

RADIUM.

The rays emanating from this substance have also powerful effects for good and evil. Radium is being used extensively for the treatment of cancer, especially in the deeper passages, where surgery is difficult.

ELECTRICITY.

The employment of electricity in the investigation and treatment of disease has been greatly developed during recent years. It had long been known that electricity possessed properties allied in some degree with the manifestation of nervous force, but it was not until much new light had been thrown on the subject by patient investigations, and by the construction of new and ingenious instruments for its administration, that its importance and value as a curative agent has been generally accepted.

The chief uses of this force have been in the treatment

of paralysis and other nervous diseases. Muscles which cannot be stimulated by the will can be made to contract by electric stimulation, so long as their nutrition is normal and they are not the subject of atrophy. This contraction, effected at stated intervals, maintains the circulation of blood and lymph in the muscles, and facilitates the return of health. Such contractions can be effected by the faradic, or by the continuous current. Many painful neuralgic affections are benefited by a continuous current of electricity. Another application of electricity now often used is that of high-frequency currents. These are currents of high potential, perhaps 10,000 volts, alternately positive and negative, and changing their sign about every millionth part of a second. They are constantly too rapid to stimulate sensory nerves, or motor nerves or muscles, which can only respond to stimuli of about 1-10,000th second duration; nevertheless, they have certain effects upon the tissues, which are claimed to be increased cellular activity, changes in the vascular system, and inhibition, *i.e.*, diminished susceptibility of the neuro-muscular system to ordinary stimuli.

BATHS AND DOUCHES.

By this means heat and cold and mechanical effects may be produced, and so the vasomotor system and the circulation may be effected both locally and generally. Medicated baths, alkaline baths, and sulphur baths are extremely useful in some circumstances, and water giving off carbonic acid in minute bubbles is claimed to have a decided effect even upon the size of the heart's cavities. The hot air bath and vapour bath are valuable means of promoting diaphoresis or sweating.

SUBSTANCES DERIVED FROM THE ANIMAL KINGDOM.

Thyroid Gland.

A powder prepared from the fresh and healthy thyroid gland of the sheep.

It is known that human beings, the whole of whose thyroid is excised, become myxœdematous, and that all sufferers from myxœdema have atrophied thyroid glands. If a preparation of sheep's thyroid is given to patients suffering from myxœdema, all the symptoms disappear usually in about six weeks, although the patient's thyroid remains atrophied. The effect is as striking as anything in medicine. It is best to begin with 5gr. thrice a day, to gradually increase the dose till 10gr. are given, and when all the symptoms have disappeared it will be necessary for about 10gr. to be taken twice a week for the rest of the patient's life, to prevent recurrence. When the treatment was first introduced the glands were eaten, or transplanted under the skin, or the extract was administered subcutaneously ; but equally good results are obtained by giving the liquor or the powder by the mouth ; tablets of the powder are very convenient and much used. A dimunition of certain goitres follows the giving of the thyroid, but it is useless in exophthalmic goitre. Cretinism is also marvellously benefited, both mentally and bodily, by thyroid preparations, especially if given early in the patient's life. A few cases of imbecility in children, a few of climacteric insanity, and a few of tetany have been much improved by thyroid. Chronic psoriasis, which has resisted all other treatment, often disappears if the patient is put to bed and takes daily enough of thyroid preparations to keep him on the brink of poisoning by them, but, unfortunately, the disease often returns when the treatment is discontinued.

Thyroid preparations have been used for obesity, but the practice is not to be recommended. They must be carefully given to those suffering from cardiac disorder. A preparation called iodothyrine, said to contain the active principle of the gland, has been used lately.

Pituitary Extract.

Is prepared from the pituitary body of the sheep. The pituitary body is a portion of the brain which was formerly called the pituitary gland. Pituitary extract is usually

given subcutaneously. It is an admirable circulatory stimulant acting within a minute or two of injection. It is of great use in cardiac failure during severe operations, and to a less extent in severe fevers, *e.g.*, pneumonia when the pulse is failing ; indeed it may be used in cardiac failure due to any cause. The effect soon passes off, but it lasts much longer than that due to adrenalin. It is much used instead of ergot to produce uterine contraction whenever that is required, and is occasionally very useful in severe constipation and to get the bowels to act after operations. Sometimes they are opened instantly after everything else has failed. It has also been given to promote the secretion of milk. If a second injection is given, it should be several hours after the first, for experiments show that a second injection quickly following a first often produces collapse.

Pepsin.

An enzyme obtained from the fresh and healthy stomach of a pig, sheep or calf. Pepsin and its preparations are given to help digestion.

Enzyme.

A name for soluble ferments, or any ferment formed within the living organism.

Liquorpancreatis.

A solution of the digestive principles of the fresh pancreas of the pig. Pancreatised foods are often useful for those whose digestions are weak.

Suprarenal Extract or Adrenalin.

It is obtained from the suprarenal glands of animals, from a capsule above the kidneys.

Adrenalin causes contraction of the small arteries. It is used with much advantage to stop bleeding, such as that from the nose or uterus, before operations on adenoids, turbinated bones in the nose, or piles.

MASSAGE AND ELECTRO-MASSAGE.

The effect of the manipulations in massage is to promote the flow of lymph and blood in their respective vessels, and to stimulate the muscles, the skin, and the skin reflexes.

On August 22nd, 1921, on the occasion of the laying of the foundation stone of the new Electro-Massage Department of Preston Infirmary, Dr. Derham, the medical officer, said, "Massage was an old subject, as also was electricity, but it took the terrible war to bring to their notice the valuable aid that the combination of the two things would be to the public. The work was quite distinct from X-Ray work and light treatment. It was for dealing with injuries to muscles and joints. Men in the Army had had access to the treatment, but the civilians had not, and what had been valuable to the soldier would also be useful to the civilian in lessening the period of invalidism. Formerly, when a wound had healed, or a fractured bone had knitted, a man was thought to be cured, but until the limb was able to function, the real cure was not effected. That was the mission of electro-massage, and its object was to return a man to his family as a bread-winner, and not as a drone—a very important step indeed."

It was highly creditable to all concerned that that institution should be so early in the field in that department of treatment.

The value of the new electro-massage department will also be realised in connection with the treatment of what are called medical cases, as distinguished from those mentioned by Dr. Derham, which belong to the category of surgical cases. There is an interesting passage in Watson's Lectures, 1871, in reference to the employment of massage (although the term was not then used), and electricity. Speaking of hemiplegia, or paralysis of the arm and leg, he says, "It will, therefore, be proper in cases of protracted paralysis to promote, and, if possible maintain the nutrition of the idle muscles by friction and pressure, by shampooing, by calling them repeatedly into action by artificial exercise through the stimulus of galvanism or of electricity. Our

aim must be to preserve the muscular part of the locomotive apparatus in a state of health and readiness, until, peradventure, that portion of the brain from which volition proceeds having recovered its function, or mode by which its messages travel having been repaired, the influence of the will shall again reach and re-animate the palsied limbs."

ARTIFICIAL MOVEMENTS.

Swedish and other Artificial Movements.

All these are active movements made by the patient himself under the direction of the physician or operator, with the object of providing a daily amount of exercise either locally or generally, in relation to the functions of the joint, or to the powers of a weak heart, or to the cure of obesity, or to the working of the digestive functions, or as in the case of Frenkel's exercises, the object may be the re-establishment of the function of co-ordination in muscular movements.

The system of treatment initiated by Schott and others at Nauheim is also supplied at various British Spas. It consists partly of immersion in saline baths; partly of regulated exercises of the arms, trunks, and legs, conducted slowly against resistance on the part of the attendant. An elaborate series of movements has been devised, comprising flexion and extension at all the large joints, these movements being made by the patients, but gently opposed throughout by the attendant. No movement is repeated at the same sitting. An interval of rest occurs between any two successive movements, and indications of strain or dyspnœa, or distress are the signals for stopping the exercises. It is allowed that the waters of Nauheim may be successfully imitated by the addition to other waters of equivalent proportions of sodium chloride (1 to 3 per cent.), or calcium chloride (·2 to ·5 per cent.), or sufficient quantities of bicarbonate of sodium and hydrochloric acid to cause effervescence.

Oertel's method consists of a systematic combination of hill climbing, with a diet in which fluids and fat-forming elements are reduced to a minimum.

In Frenkel's method, the patient is conducted from simple rhythmical to more complicated movements, and is made to pay such attention to them as to ensure a thorough education. The movements are active, and consist in flexion and extension of the legs to minimum, maximum, and intermediate extents, while recumbent, sitting or standing; in moving the foot from point to point in a regular methodical manner; in walking slowly on marked lines, straight, and zig-zag, or in marked footsteps, forwards, sideways, and backwards, &c. They should be carried out three times daily, at first for 10 or 15 minutes, and later for half an hour to an hour. Massage may be usefully employed at the same time.

DISEASES OF TROPICAL CLIMATES.

The researches which have been made in connection with many of the diseases which are prevalent in tropical climates have led to the discovery of the specific micro-organisms which are concerned in their causation, and to the establishment of methods for the prevention and cure of them. A few years ago I read an announcement from the Colonial Office that from July 1st the "Sleeping Sickness Bureau" will be known as the "Tropical Diseases Bureau." The reconstituted bureau will deal with all exotic diseases which are prevalent in tropical and sub-tropical regions, and will publish at frequent intervals a *Tropical Diseases Bulletin*. The Director will have the Assistant Director and a number of experts, who will be responsible for the different subjects, and will furnish authoritative reviews and summaries of published papers to appear in the *Bulletin*. Thus the results of the most recent researches on every tropical disease in every country, new methods of treatment, and improved means of prevention will quickly become available for the remote worker in the Tropics.

CAMBRIDGE RESEARCH HOSPITAL.

A Research Hospital is no ordinary institution, and we shall realise this when we bear in mind the momentous

possibilities in relation to life and death, to rich and poor, and to the learned and unlearned, which are involved in the work to be carried on in it. Who would have thought it possible, fifty years ago, that Pasteur's researches in connection with putrefaction, which prepared the way for Lister's discovery and aseptic method of treatment, would have produced such far-reaching and life-saving results, and such incalculable benefits to mankind? Who can tell what may result from the work carried on in the Cambridge Research Hospital.

The work carried on at the Research Hospital at Cambridge has a four-fold object :—

(1) To give relief to the individual patient.
(2) To benefit others suffering from similar diseases by throwing light on their origin and treatment.
(3) To discover means of preventing their onset in those at present healthy.
(4) To impart the knowledge thus gained to others.

There are numerous ailments, such as rheumatoid arthritis which, though not immediately threatening the life of the sufferer, often last many years, and finally leave the patient helpless, a burden on public charity or private benevolence. These diseases have received comparatively little attention from those who devote themselves to original research. Such diseases are, as a rule, unduly neglected in research, although they cause a far greater sum of human suffering than do the acute disorders which are so much more striking in their manifestations, and more dramatic in their cure. These diseases incapacitate the sufferer from active work, cause great pain and misery, and finally leave the victim helpless. Patients suffering from these diseases owing to the slow progress and long continuance of their illness, are not suitable for reception into General Hospitals which, as a rule (and rightly so), admit by preference, cases of the more acute diseases. The mode of origin, or progress of these affections, is very imperfectly known, and little, therefore, can be done in the way of their rational treatment. The great need of scientific research on these chronic diseases

has been strongly felt by the medical profession for many years. To the sufferers themselves, these diseases mean virtual loss of all enjoyment in life, and in the case of persons who have to earn their living—disablement from active work. Yet nothing can be more pitiable than the state of the victims of these chronic diseases, such as rheumatoid arthritis, their condition may be one of almost ceaseless pain, making life an almost uninterrupted torture.

RESEARCH LABORATORIES.

Research Laboratories and similar institutions have been founded with the object of providing every practitioner, who desires it, the assistance which can be rendered by a fully equipped laboratory in the investigation and treatment of disease.

Instruction is given as to the exact way in which the necessary material should be collected and forwarded for investigation, and the deductions which may be justifiably drawn from the results obtained are sent to the practitioner concerned.

If a medical man suspects that a patient has tubercle bacilli in his expectoration, in many instances he sends a specimen of it to one of these institutions. Similar assistance, though the information is not often so conclusive, is given in connection with typhoid fever. Very valuable guidance is also given in reference to a morbid growth as to its being of a malignant or non-malignant character.

Although all medical men are supposed to acquire a knowledge of the work carried on in a research laboratory, many do not become sufficiently expert to undertake the work themselves, and comparatively few have sufficient time at their disposal for the necessary investigation.

CONCLUSION.

A consideration of the subjects which I have endeavoured to discuss suggests various reflections. One of them is that if, during the last 85 years such marvellous discoveries have

been made, what may be expected during the next 85 years. Another is that we ought to be very thankful that we have been allowed to live during a portion of a century which has been more remarkable than any of its predecessors for the discovery of inventions and appliances which have added so much to the interest and enjoyment of life. It would be an interesting exercise of the imagination to consider what the life of people was during the 85 years which intervened between 1751 and 1836, and to compare it with the experience of those who have lived during the whole, or a portion, of the interval between 1836 and 1922.

Lord Avebury, or Sir John Lubbock, as he was better known, says in one of the chapters in his *Pleasures of Life*, "What language can be strong enough to express the gratitude we ought to feel for the advantages we enjoy! We do not, I think, appreciate our good fortune in belonging to the nineteenth and twentieth centuries."

REMINISCENCES OF PERSONS.

SIR CLIFFORD ALLBUTT.

I HAD the pleasure of making Sir Clifford Allbutt's acquaintance in March, 1906, when he wrote to me from 4, Esplanade, Ambleside, stating that he should like, on his way to London, where he had to attend a meeting of the Athenæum Committee on April 3rd, to call and thank me personally for my financial assistance in connection with the Research Hospital Movement at Cambridge. In acknowledging the receipt of his letter I invited him to dine with me and make my house his home for the night.

Preston.

Your cordial letter settled my arrangements very quickly. The 2-25 p.m. from Windermere, arriving at Preston 4-10 p.m., was that on which my eye also had lighted, but I did not feel sure if this might invade your day's work a little too soon. I am glad it will just give time for us to visit the Preston Infirmary. On Monday next, then, please expect me at 4-10 p.m., and if you are unexpectedly detained as is so frequent with us, pray do not mind meeting me as you so kindly propose. I shall drive direct to your house.

It seems rather a cool proceeding to trespass upon your hospitality in order personally to thank you for your beneficence. If I may take you at your kind word, and come to Preston the previous night, April 2nd, I would leave Preston 11-11 a.m. for Euston in the morning of April 3rd.

I had fortunately another visitor the same evening in Dr. Colin Campbell, of Southport, who said that he had experienced the guidance of Sir Clifford when he was practising in Leeds as a Consulting Physician. I took them to see the Infirmary, the Harris Library and Museum, and the School of Domestic Science, with all of which they were very much pleased. I was delighted to find that Sir Clifford was interested in my Chamber Organ, and he told me that although he was able to play, he considered himself " More of an organ builder than player."

Shortly afterwards I received an invitation from Dr. Dreschfeld, of Manchester, to be his guest for the night to

meet Sir Clifford Allbutt, whom he was also entertaining on the occasion of an important meeting of the Manchester Pathological Society.

On July 15th and 16th, 1906, I spent at St. Radegundes two very pleasant days, and I was much impressed with the kindness of Sir Clifford and Lady Allbutt. Sir Clifford came to the Cambridge Station on his bicycle to meet my train, and cycled alongside me as I walked to his house, which was not far from the Station. Lady Allbutt was on the door-step of St. Radegundes to welcome me on my arrival. Next day Dr. T. P. S. Strangeways, the Huddersfield Lecturer on Pathology, and one of the most enthusiastic advocates of the Research Hospital Movement, conducted me over several of the Colleges, and in the evening Sir Clifford Allbutt took me to dine with him at St. John's College, where I had been once before as the guest of the late Sir John Gorst.

The occasion of the second visit to Sir Clifford Allbutt was my opening of the Research Hospital at Cambridge, and to receive the Honorary Degree of M.A. on May 24th, 1912.

In the evening Sir Clifford had a dinner party at which were Sir Norman Moore, the President of the Royal College of Physicians; Dr. Shipley, the Master of Christ's College; Professor Sims Woodhead and T. P. S. Strangeways, and others. The next morning I went on the invitation of Dr. Shipley to see Christ's College, and the rooms which were occupied by my two brothers from 1848 to 1851, and from 1852 to 1855.

Extracts from Sir Clifford Allbutt's Letters.

Professor Van Gehuchten of Louvain.

Among the Belgian Refugees has come to Cambridge, Professor Van Gehuchten, Professor of Neurology at Louvain. Are you willing to accept him as a candidate for your studentship? He is a man of high reputation in Neurology, and thus well known to all by name, and now personally. He is a man I should say about 50, full of vigour and marvellously elastic, as all these Belgians are, under his affliction.

All his manuscripts destroyed, poor fellow! We really think that it is a most happy opportunity of securing a first rate Neurologist to work the nervous side of rheumatoid arthritis, wasting of muscles, pain, &c.

Many thanks for your kind permission *re* Van Gehuchten. Sir D. Ferrier tells me that he is not good second rate, and not only first rate, but "*Tip Top*," and the way he is going about his research work is most skilful, and equal to his modesty.

We got a little more money for Professor Van Gehuchten, bringing this up to £200. He started off three or four weeks ago in brilliant form. Very skilful. Last Monday he had a pain in the left hypochondrium, repeated next day with signs of illness. Waring kindly came down from St. Bartholomew's without fee, operated, and set the kink free, and he is doing well.

You will, I am sure, be shocked to hear that Professor Van Gehuchten is dead. I saw him at one o'clock at the Convalescent. Cheery, pulse and heart good, talking of getting up, and probably would have been fit to do so. He wrote the enclosed letter to me yesterday. He died of syncope. Yet how strange he should have survived the operation so well. It is a sad loss to us both as a friend and fellow worker. I suppose mental distress and harass shook him to the foundations of life.

Personal.

You have displayed a discrimination, a wisdom, and the large view of the sphere of Science, which directed your gifts to the best purpose.

Speaking of the microscope which I sent to the Research Hospital, he says :—

It is a lovely instrument. There are only three in all our Science departments to compare with one belonging to Strangeways and yours.

Speaking of a photograph in which I was taken with General Booth, he says :—

The General is a glorious old man, and I will venture to say that your association with him in one picture is in congruity. The dietary is interesting. I wonder how many years he observed it strictly.

It is a great gratification to me on your election to the Fellowship of the Royal College of Physicians. Cambridge, in whose work you have taken so warm an interest will be much gratified to hear of your honour, and the gratification of Lancashire will be no less.

One would have hoped that at our age chronic ailments would have had their chance, and failed. My hope is that I may pass away in some gentle way, before I become invalided. So far I still ride my bicycle, and do a lot of work, but I get more tired, but hope it is only the hot weather.

Preston.

You told me and shewed me many interesting things, but none more interesting than the housewifery scheme.

The Matron of the Hospital at Malton, Miss Lorimer, who is a devoted disciple of yours, was at the Preston Hospital. She is a great success here.

I was much impressed by your Hospital, for we get into the way of thinking that Hospitals don't rise to their best without the lively criticism of the School of Medicine, and that it *does* in Preston, speaks volumes for the up-to-dateness of its Staff. I have never seen a more taking operation room, so nice and efficient, and may I say of such a sad place, *cheerful*.

Research Hospital.

It is so wonderful as you say to see these men devotedly working here like Strangeways, on mere pittances, or like many others who prefer to live and work here for the higher knowledge of life, on incomes of £500 to £600 a year. Professors, &c., who could earn perhaps five to ten times as much in the world as Electrical Engineers, Medical or Law Professors, &c. It makes me think hopefully of one's species. With reference to the Research Hospital (as it is not my idea), I can permit myself to say that it is a most fertile, practical, and masterly method, and so far as I know, *original*, and is even *unique*. It merits every help which you and other friends may feel disposed to give to it. Have you not a spare millionaire up your way to send us ?

We have now got the Research Hospital back from the Government, and I think a few patients are already in residence.

Strangeways, during this time of War stoppage, has completed a superb series of Pathological specimens, and a large series of coloured drawings.

We seem still incomplete on Rheumatoid Arthritis, and not able to go forward to another disease. Suspended by the War the work is going regularly forward.

Sir Clifford Allbutt's Letters.

Visit of German Physicians.

It will interest you to hear that the Council of the Research Hospital has so fairly impressed the German Physicians, who usually know nothing outside Germany, that a deputation of three of them (sent by one of the first authorities of the day, Müller of Munich), went over, and were much impressed. Müller, whom I know well, told me afterwards it was one of the most impressive events of his visit to England, both the idea, and the work done.

Commendation of Assistance in Research Hospital.

I believe you are helping forward in the field of medicine the most promising and fertile movement of the time.

Prince Leopold X-Rayed.

You may be interested to hear that with the X-Ray apparatus which you gave us, we photographed the knees of Prince Leopold of Battenburg, who is up here, and needs every care, but is fairly well at present.

MR. HORACE BARLOW.

For many years Mr. Horace Barlow has been the Assistant Librarian of the Royal College of Physicians, and I have frequently received kindness and attention from him when I visited London.

In writing "Sixty-four Years a Doctor," I have consulted him on several points, and he has given me valuable help.

He had a great friend and admirer in the late Sir William Osler, who invited me to meet Mr. Barlow at dinner at the Automobile Club, in the early part of 1914, before the War.

SIR THOMAS BARLOW.

The name of Barlow is a household word in Bolton and the neighbourhood, and Sir Thomas is one of the most distinguished members of the family.

The first time I had the pleasure of seeing him was at a Conversazione at the Royal College of Physicians, when he was President. The occasion was memorable, as, if I am not mistaken, there had not been one for 20 years. It was a gathering of distinguished men in the scientific and medical world. Every possible provision was made to give them an appropriate entertainment, and the Conversazione was in every sense a magnificent success. I had never before had the pleasure of seeing Sir Thomas, but had corresponded with him in reference to patients. One incident which added very much to my pleasure was my introduction by him to Sir James Mackenzie.

LIEUT.-COL. BARON BENTINCK.

The Baron served during the Boer War in 1900 in the Rifle Brigade, and was appointed Deputy Commissioner at Vereeniging shortly before the peace was signed. He was engaged in France during the recent War for two years, and was invalided home. Subsequently he was in charge of the Records Office at Preston for three years. Shortly before

last Christmas he went with his wife and only son to Switzerland and Italy, and he has written me such a graphic and interesting account of what he saw and heard that I shall read his long letter again with a geography and atlas at my side.

I made the acquaintance of the Baron under somewhat peculiar circumstances. One day when consulting Dr. T. H. Miller, a dental surgeon well known in Preston, he asked him if he could tell him of anyone who could give him the name of the composer of a chant which he had heard at St. George's Church. Dr. Miller referred him to me, and I had no difficulty in giving him the information that it was composed by C. J. Yates, who was the organist of St. George's Church for 40 years, and with whom I had been well acquainted. After this introduction, and until the Baron's three years of service at the Records Office had expired, he was a frequent visitor at my house, and it was a great pleasure to me to play the organ to a friend who appreciated sacred music so much as he did.

MR. W. T. BEST.

Mr. W. T. Best, Organist of St. George's Hall, Liverpool, opened the new grand Willis Organ at St. George's Church, Preston, in September, 1865. I heard, with much pleasure, his splendid musical recital.

I afterwards dined at the Victoria Hotel with him, my brother-in-law, Mr. T. M. Shuttleworth, Mr. Birchall, one of the Churchwardens, and his son, Arthur, who designed the beautiful oak case of the organ.

Shortly after we commenced the dinner Mr. Best threw away his table napkin and said sharply to the waitress, "Take that napkin away—it is damp!" When I asked him what was the matter, he said he was afraid of getting rheumatism in his fingers.

As Mr. Sims Reeves informed me that when he was travelling, he always took his own sheets with him, I might have suggested to Mr. W. T. Best that he should always take his table napkins when he travelled.

MR. HENRY R. BIRD.

Mr. Henry Bird was the Organist of St. Mary Abbots, Kensington. He was also a very distinguished Pianist. For many years he was the accompanist at the Saturday and Monday Popular Concerts, and some of the distinguished vocalists who came from London to Blackpool refused to enter into an engagement unless they could be accompanied on the piano by Mr. Henry Bird.

On Whit-Tuesday afternoon, May, 1912, on my way from the Hippodrome oppressed with the heat, in passing through Kensington, I sought a cooler atmosphere in St. Mary Abbots, Kensington. I hoped also to find my nephew, Frederick Gregson Shuttleworth, who was at that time, and had been for more than 20 years, the deputy organist, but who, on the death of Mr. Henry Bird, was appointed his successor. The Verger informed me that Mr. Shuttleworth was having an afternoon off, and that Mr. Bird himself was taking the service. I waited until it had concluded and then introduced myself to Mr. Bird as the uncle of his deputy. He was exceedingly kind to me, told me a good deal about the organ, and said that he would be glad to play a little more for me if I wished him to do so. He then asked me where I was going, and when I said to Kensington Gardens, he replied that he would be glad to go with me. He did so, and afterwards accompanied me to Oxford Street and saw me in the most suitable omnibus to take me to the Euston Hotel.

I heard nothing more of him until I received a letter in July, 1912, from my nephew, stating that Mr. Bird would pass through Preston in the course of a few days on his way to Blackpool, where he had arranged to conduct an examination in music. I thereupon wrote to invite him to dine with me and sleep here, but he was only able to accept the first part of my proposal, as he had to commence his work at Blackpool at eight o'clock in the morning. It so happened that on the evening fixed for his visit to Blackpool, I had promised to dine with my friend Mr. Galloway, at the Willows, Ashton-on-Ribble, and I knew that he would be very much

pleased to have Mr. Bird as one of his guests. I therefore announced to Mr. Galloway my intention, and he heartily approved of it. Both he and his friends were delighted with Mr. Bird's company, and what Mr. Bird himself thought of his visit to the Willows is expressed in a letter, of which I am adding a copy to what I have expressed as a very happy reminiscence. As Dr. Sprawson, of Blackpool, was returning home in his motor car, he took Mr. Bird with him, and thus added another link to his chain of enjoyment.

8, Longridge Road,
Earl's Court, S.W.,
14th July, 1912.

Dear Dr. Brown,

On this Sunday afternoon, having a little breathing time, I am anxious to send a few words of acknowledgment and sincere thanks for your great kindness to me on Wednesday. May I assure you how very greatly I enjoyed everything you so kindly planned for me. Those two great institutions in Preston have left a lasting impression on me, and then it was entirely for your sake I was so warmly received in the evening, for I really felt I had no claim to have been the guest at such a distinguished entertainment as Mr. Galloway had provided; then it was delightful to be taken back to Blackpool in such a speedy and luxurious carriage, so altogether I beg you to accept my grateful thanks, and believe me with sincere esteem.

Yours most truly,
(Signed) HENRY R. BIRD.

GENERAL BOOTH.

In the summer of 1910 I was requested by the Mayor of Preston to show hospitality to General Booth, from Saturday night to Monday morning, and I had much pleasure in consenting to do so. The object of his visit was to awaken the interest of the public in the work of the Salvation Army. As I was anxious to make the arrangements for his comfort as complete as possible, I wrote to the Headquarters of the Salvation Army in London for some information in reference to the hours at which he took his meals and the kinds of food which he preferred to have, and any other matters which were regarded as important. The following were the instructions :—

The General is a vegetarian, and does not take fish, flesh, or fowl in any form.

In the morning, usually about 8, the General takes

very crisp toast and butter, with tea and sliced lemon, instead of sugar and milk, which he uses as desired. A small quantity of grated or cream cheese is acceptable also.

For lunch, at about 12-30, he has a little vegetable soup with asparagus, potatoes, or other vegetable that may be in season, together with crisp Yorkshire pudding occasionally, all of which he prefers at the same time as the soup.

Before leaving for the afternoon meetings the General likes a cup of tea.

Directly after his afternoon meeting, usually about 4-45 p.m., the General takes tea, bread, and butter, and cream cheese, with mushrooms occasionally, or fried potatoes, as may be convenient. Sometimes a little honey.

For supper a little bread and butter, some toast, and a jug of hot milk is acceptable, and when apples are not in season, an orange is preferred.

By way of beverage the General drinks Seltzerwater.

A quiet and darkened bedroom is very desirable, as his sleep is easily broken, while a soft bed is preferred, if convenient.

The officer who accompanies the General will need a separate bedroom as near the one occupied by the General as possible.

I did not see much of the General during his visit, but I was very much impressed in the short conversations which I had with the "Grand Old Man," and I regarded the opportunity of entertaining him as a great privilege.

Whatever opinion may be held with regard to the religious side of the operations of the Salvation Army, there can hardly be two opinions as to the enormous value of its philanthropic work.

Although there has been much difference of opinion in reference to General Booth's methods, there can be no doubt that his work represented a great national force for the moral and spiritual elevation of the people of the world. The Salvation Army has conducted its operations in no fewer than 70 different countries and 42 different languages. Hundreds of thousands of men, women, and children have

been rescued from sin, misery, and degradation through its instrumentality.

It is interesting to reflect how the Salvation Army grew up, the creation of one man, or rather of a pair of human beings, for the late Mrs. Booth was scarcely less important to its development than was her husband.

His originality lay in carrying his method not only into the highways and hedges, but into the slums, the homes of the very poor, the haunts of criminals and riff-raff, and in his own special way converting them and changing their mode of life.

The story of the Salvation Army is one of the most amazing religious movements of modern times. Within the crowded and momentous lifetime of its founder, the Salvation Army has grown from an obscure slum mission in London to an international crusade of social and spiritual evangelization which has benefited hundreds of thousands of the submerged tenth in every civilised nation ; has been appreciated, patronised, and encouraged by monarchs and governors of almost every nation under the sun ; and has undoubtedly done much to arouse the public conscience to the social cancer which lies at the root of society.

The Salvation Army began in 1865, when one man and his wife, Mr. and Mrs. Booth, took up their stand as street preachers at Mile End Green.

As General Booth stood with me on my front doorstep waiting for my carriage to take him to the station, a snapshot was taken of us, and we both came out very well.

COLONEL CYRIL BOWDLER, C.B.

I had the pleasure of entertaining Colonel Cyril W. Bowdler, C.B., on the occasion of his visit to Preston in connection with the Ambulance movement, and I invited a few friends who were interested in that subject, and in music, to meet him. It was most unfortunate that the day fixed for his meeting occurred during the absence of my cook on her holidays. I endeavoured to make up for the

loss of her services by engaging what is called a "Town's Cook," whose late arrival in the afternoon caused me much anxiety in reference to the punctuality which I wished to observe. I was sorry to find that my anxiety was quite justified. Having been on the fidgets for an hour and a half, and there was no sign of dinner, one of my musical friends jocularly asked me if they were to expect any dinner that evening?

Both my guests and I enjoyed the charming society of Colonel Bowdler, and regretted that it was only for a few hours.

Colonel Cyril William Bowdler, C.B., was one of the most interesting personages in connection with Ambulance work. He was born in September, 1839, joined the 8th Hussars in 1864, and on his retirement from the Service in 1891 was employed for a few years in the Intelligence Department. For many years he was Chief Commissioner of the St. John Ambulance Brigade, and he died at Camberley on November 7th, 1918. He was created a C.B. in 1902, largely in recognition of his work in connection with supplying Orderlies in the Boer War.

Not only was Colonel Bowdler a soldier, but he held a Medical Degree, was a Bachelor of Music, and Doctor of Laws, and he wrote and spoke several languages proficiently. He held successively the appointments of First Deputy Commissioner of the London Department of the St. John Ambulance Brigade, the Chief Commissioner, and Commissioner for Special Services. He was an important agent in the creation of the Bearer Companies of the Brigade, which as a supplement to the Royal Army Medical Corps, became incorporated on the outbreak of War, and of the Royal Naval Auxiliary Sick Berth Reserve, as a supplement to the medical personnel of the Navy. The latter was so well organised that its mobilisation was completed 24 hours after the outbreak of hostilities.

Though somewhat reserved in manner, and strict in discipline, he was a true and charming friend to those who earned his confidence.

SIR J. F. BRIDGE.

I made the acquaintance of Sir J. F. Bridge, or Dr. Bridge as he was then, at the house of Mr. Geo. Galloway, Ashton-on-Ribble. His son, Mr. W. W. Galloway, who is now Vice-Chairman of the great Cotton Spinning and Manufacturing firm of Horrockses, Crewdson & Co., was one of Dr. Bridge's pupils, and is an accomplished organist and pianist. He lives at a beautiful house called The Willows, about 50 yards from Ashton Bank, and his garden was laid out from the designs of Mr. Mawson, whose name is now associated with the building of modern Athens. The Willows contains a collection of the finest works of Art, a three-manual organ by Lewis, of Brixton, a Steinway pianoforte, a gramophone, and an electrical piano. Mr. Galloway has also a house on Imperial Terrace, Blackpool, between which and the Willows he travels in one of the finest motor cars on the road. When he was learning the cotton trade at about 16 years of age he had the misfortune to have the second and third fingers of his right hand severely injured by some of the machinery. I made his acquaintance by his coming to my house to have his injuries attended to, and I was afraid both then and afterwards that amputation would become necessary, but I persevered with the simple dressing that I at first adopted, and the fingers made such a good recovery that he has ever since then been able to play the organ and piano without any difficulty whatever. When one bears in mind the wonderful results which are now experienced from the adoption of the aseptic method of treatment, it is interesting to know that the only dressing which I employed was pieces of lint dipped in cold water and fastened round the finger with a piece of bandage.

I also had the pleasure of meeting Sir. J. F. Bridge at dinner at Mr. Galloway's, The Willows, and going with him and his host to the Ashton Wesleyan Church, where he delivered an interesting and amusing account of his interview with the committee appointed to revise the Wesleyan Church Hymn Tune Book. There were many entertaining incidents in his address, but I will only mention one. The

merits of each tune were discussed, and it frequently happened that when Sir Frederick remarked, "Oh! I don't care for that tune. I think I wouldn't put it in the revised edition," there was a general outcry, "Please don't leave that tune out. It is a great favourite with our friends in the North." I had arranged with Mr. Galloway to go to London to hear a performance of Sir F. Bridge's Cantata, "Boadicea," by the Highbury Musical Society, but business engagements unfortunately prevented Mr. Galloway from accompanying me. In travelling from London to Highbury I accidentally found myself in the compartment containing Sir F. Bridge, and I was rather startled when he suddenly shouted through the window at the top of his voice, "Joey! Joey!" It appears that he had recognised on the platform of a roadside station, his friend Mr. Joseph Maas, the eminent tenor, and the incident recalled the Guild of 1882, when I had the pleasure, at the request of Sir Frederick, of entertaining Mr. Maas as well as himself.

During the Guild week in September, 1882, Sir Frederick and I had several visits from Mr. Robert Hilton, the principal bass singer of Westminster Abbey, whose valuable services had been secured by the Guild Musical Committee. Mr. Hilton was the guest during his visit to Preston of Mr. Thos. Dilworth, the Steward of Whittingham Asylum. Both Mr. Dilworth and Mr. Hilton in the earlier parts of their careers were employed in the Goods Department of the London and North-Western Railway Co., at Preston, and Mr. Dilworth told me with justifiable pride that he taught Mr. Hilton his notes. Mr. Hilton was, up to the time of his leaving Preston, a member of the Parish Church Choir, and he had previously occupied a similar position at St. Peter's Church.

My nephew, Frederick Gregson Shuttleworth, who is at present the Organist of St. Mary Abbots, Kensington, was an articled pupil with Sir Frederick Bridge. On Whit-Sunday, 1914, I went with Dr. Wetton, Organist of the Foundling Hospital, who was also an articled pupil with Sir Frederick, to have tea with him at his house in

The Cloisters, and we afterwards sat with him in the organ loft during the evening service. We had the pleasure of meeting at the house in The Cloisters, Dr. Alcock, the Organist of the Chapel Royal, and one of the deputy organists of Westminster Abbey, and also Mr. Corney Grain, at one time a well-known entertainer.

MR. HERBERT BRIERLEY.

The St. John Ambulance Association has not a greater friend in Preston than Mr. Herbert B. Brierley. He has been the Honorary Secretary for about 30 years, and he still displays great energy in organising new classes and promoting the success of the Ambulance movement in every possible way. His cheerful countenance is a very valuable asset to him, and is "Like a sunny day which sheds its brightness all around."

SIR GEORGE BUCHANAN.

Sir George Buchanan was sent to Preston by Sir John Simon, President of the Local Government Board, in 1862, to investigate an epidemic of typhus fever which occurred during the Cotton Famine. When I was at King's College Hospital I was clinical clerk to Dr. Charles Marchison, one of the greatest authorities on the subject of fever. He had predicted that typhus would occur as a result of the overcrowding and destitution arising from the poverty of the people. I wrote to tell him as soon as the outbreak commenced, and he was very much pleased with me for doing so. The Corporation of Preston put up a temporary fever hospital. The contagion was so severe that Dr. Ridley, the Medical Officer in charge of this hospital, and 12 nurses died within a very short time of each other.

Shortly after his arrival in Preston, Sir George Buchanan called upon me, and I went round with him to some of the houses in which the fever cases occurred.

DR. WILLIAM CAYLEY.

Dr. William Cayley was a fellow-student with me at

King's College, London, from 1855 to 1858. When he had obtained his qualifications at the University, he was for some time assistant to Sir William Bowman, the eminent Ophthalmic Surgeon. He afterwards became one of the Physicians to the Middlesex Hospital, and to the London Fever Hospital, Liverpool Road, Islington. He lodged in Queen Square, Bloomsbury, and I in Belgrave Street, King's Cross, Euston Road. We generally walked together until he turned from Red Lion Street, to the left, to Queen Square. After I left London, and up to the time of his death, we occasionally corresponded. In 1893 I stayed with him one night when he lived in Wimpole Street, Cavendish Square, and I twice spent a night with him at Queen's Road, Richmond, I quite agree with every word which was said of him in the obituary notice in the *British Medical Journal*. He was one of my most highly esteemed friends.

LIEUT.-COL. CHARD, V.C.,
The Hero of Rorke's Drift.

I had the pleasure of making the acquaintance of Major Chard at "Greyfriars," the house of Sir Frank and Lady Hollins. They are two of my oldest friends, and I have received great kindness from them, and enjoyed their hospitality on many occasions. Sir Frank is the Chairman of the widely known firm of Messrs. Horrockses, Crewdson & Co., Ltd. Lady Hollins, in addition to receiving other distinctions, was awarded by the King, for her valuable and benevolent work in connection with wounded soldiers, the O.B.E. Lieut.-Col. Chard obtained the V.C. for his valiant conduct during the Zulu War in 1879.

When he was a Lieutenant in the Royal Engineers, he, Lieutenant Bromhead of the 24th Regiment, and Lieutenant Adendorf, of the Natal Contingent, with about 100 men valiantly defended the position of Rorke's Drift, when it was attacked by 3,000 to 4,000 Zulus. They held the position from five o'clock in the afternoon until daylight the following morning, when Lord Chelmsford arrived with relief forces, and they retired. As the three lieutenants had heard of

the disaster at Isandula, where there had been a destruction of almost the entire 24th Regiment, they felt certain that an attack on their little force was imminent, and they threw up a barricade of empty meal bags and biscuit tins. In this they were helped by the Chaplain, the Rev. George Smith, and many people were disappointed that he was not also awarded the Victoria Cross. Lieut.-Col. Chard resided at Sumner's Hotel, Fulwood, from 1890 to 1896. For several winters, commencing 1881–1882, he inspected all examinations under the Science and Art Department, Kensington. Lieut.Col. Jolly often accompanied him to the Convent School, 22, Winckley Square, and also the one at Larkhill. He was always thoughtful and kind, but most conscientious, and insisted on all regulations being strictly carried out.

An amusing incident occurred in connection with Lieut.-Col. Chard when he was living at Fulwood. One Sunday he was attending morning service at a neighbouring Church, when a Mr. Stott, who was sitting with his little son in a pew a few feet further back, pointed to the Major and said in a low voice, "That is the hero of Rorke's Drift." The child remarked, but not in a whisper, "Father, I always thought that a hero was a very big man." This incident evidently interested some of the members of the congregation who heard the little boy's comment, and it certainly attracted the attention of the Lieut.-Col., who probably blushed, as he was a very modest and unassuming little man.

MADAME BELLE COLE.

About 30 years ago, when Madame Belle Cole was taking part in a concert at Preston, she was the guest of my sister and myself for the night. We invited a few musical friends to meet her at supper, and she delighted us beyond description by her rendering of Sullivan's "Lost Chord," in my drawing room. It was before the days of gramophones, and I feel what a pleasure it would have been to us if we could have preserved a record on that useful and popular instrument, of her magnificent contralto voice.

MR. J. D.

Mr. J. D. was for many years Secretary to the Joint Railway Companies at Preston, and it was he who first provided me with passes to Fleetwood and Blackpool for the Preston Infirmary Nurses. He lived to be 90 years of age, which seems a very extraordinary circumstance when it is borne in mind what his ordinary habits were.

I one day received a letter from a patient of mine who sailed to Algiers from Marseilles. In a letter which he wrote to me on his arrival at Marseilles, he said, "On the boat was Mr. J. D., of Preston. He is the most extraordinary man I ever met. He never had a cigar out of his mouth except when he was eating, and he appeared to me to sample every species of liquor there was on board the ship."

THE DERBY FAMILY.

My first recollection of the Derby family dates from Wednesday, September 3rd, 1862, when Edward Geoffrey Stanley, the 14th Earl, presided at the dinner of the North Lancashire Royal Agricultural Society. The dinner was held in a large tent in Chapel Walks, and there were about 1,700 persons present, including a large number of farmers, upon whom the noble Earl impressed the importance of the application of manure to the land, and he emphasised its value in the short sentence, "Muck is money." In their excitement many of them frequently repeated the emphatic sentence, but not in a whisper. The weather during the Guild week of 1862 was most unpropitious, for it rained heavily nearly every day. The tent in which the dinner was held was not waterproof, and the rain literally poured through the canvas at times, causing much discomfort. My experience was a most unpleasant one. The view of Lord Derby was intercepted by the umbrella of a Dr. Broughton, who sat near me, and after frequently shouting in vain, "Put that umbrella down," some officers from Fulwood Barracks began to pelt it with little round rolls of bread which had attained the consistence of bread poultice. These little masses of softened bread on hitting the umbrella glanced off on to my

new frock coat and completely spoiled its new appearance.

It was a great pleasure to me to hear his addresses, as I had often heard the Earl of Derby spoken of as the Rupert of debate, on account of his forensic eloquence. After the dinner the Earl of Derby delivered several addresses "replete with eloquence, good sense, and practical wisdom." One of the principal musical features of the day was a band playing "Stanley for Ever." The music I need scarcely say was not composed by Mendelssohn, Sullivan, or any other distinguished musician.

On June 3rd, 1873, I was at a luncheon given by the Mayor, Mr. Miles Myers, at the Guildhall, to the 15th Earl of Derby, son of the above, and uncle of the present Earl. The occasion was the unveiling of the Statue of the 14th Earl of Derby, in Miller Park, by Lord Winmarleigh. On the day the statue of the Rupert of debate in Miller Park was unveiled, a friend of mine met a man in Fishergate and asked him what the excitement in the streets was about, and his reply was, "He did not know, but he had been told that 'It was the unvealing of the Statute.'"

At the Guild of 1902, the 16th Earl, father of the present Earl, lived during the week at number 8, Winckley Square, and I have met him and had a chat with him when he was taking his early morning walk between seven and eight o'clock. Shortly after the Guild I had the honour of investing on behalf of the Preston Corporation the Dowager Countess with the first Mayoress's Chain, the object of which was to place on record the kindly courtesy and hospitality which she and her husband had extended to the inhabitants of Preston during the Guild Mayoralty of 1902. At a later date, a number of Prestonians, of whom I was one, were invited to visit Knowsley, and we had a very kind reception and hearty welcome from the Earl and Countess. We had the privilege of inspecting the house and gardens. One of the attractions which had been provided was an orchestra composed entirely of ladies.

On Saturday, April 19th, 1913, I was there when the present (the 17th) Earl of Derby opened the new Grammar

School in Moor Park Avenue. I received the whole of my education, except the medical portion of it, at the old Grammar School in Cross Street, and it was very interesting to me to hear the Headmaster say that it was an established fact that the 12th Earl of Derby, who was born at Patten House, Preston, on the 12th September, 1752, received his early education at its predecessor, the old Grammar School, in Stoneygate.

I have not forgotten the memorable wish which the noble Earl expressed at the conclusion of the Preston Guild Festival, namely, "That the connection between Preston and his family might be preserved in the same manner as it had been hitherto, by mutual respect, mutual confidence, and mutual love."

Colonel the Honourable George Stanley made himself known to me by calling to remind me that he was a candidate for the representation of Preston in Parliament, and, during the last few years I have frequently enjoyed his society at the 9th November Mayoral and Aldermanic luncheon. I first met Lady Beatrix Stanley at the annual meeting at the Cross Deaf and Dumb School, next at the Conservative Working Men's Bowling Green, at Fulwood, and the third time at the house of Mr. W. W. Galloway, The Willows, Ashton-on-Ribble. I am looking forward to the pleasure of seeing her again during the Guild week, if not before.

I was introduced to the present Lord and Lady Stanley when I was presented to the Prince of Wales on June 21st, 1921.

The Hon. Arthur Stanley, M.V.O., M.P., as he then was, now the Hon. Sir Arthur Stanley, G.B.E., C.B., M.V.O., M.P., was installed Right Worshipful Provincial Grand Master for the Western Division of Lancashire, in the Public Hall, Preston, on Monday, October 10th, 1910. I was present on this occasion, and regarded it as a very impressive ceremony.

SIR DYCE DUCKWORTH.

I find that I began to correspond with Sir Dyce Duckworth in 1902, with reference to a patient, but I did not

personally make his acquaintance until I met him at the Royal College of Physicians, when I was admitted to the Fellowship, May 14th, 1908.

I had heard a great deal of his brother, the Rev. Canon Robinson Duckworth, at a house, 55, Hamilton Square, Birkenhead, and also from my sister, Mrs. Shuttleworth, of Hall Road, St. John's Wood, who was a member of his congregation.

I was therefore all the more interested when I had the pleasure of making Sir Dyce's acquaintance.

In October, 1910, I received the following letter from him :—

> I have been interested in reading about your civic honour, and venture to add my warm congratulations to you herewith. As I am a Lancastrian, I know what heartiness and energy are, so I can picture the fervour which characterised the feelings of your fellow-townsmen last Saturday. These particular honours seldom come to members of our Profession. Certainly less often than they might well do.

In 1912 I had another letter from him in which he says :—

> I am much obliged by your little book about Lytham, Blackpool, and St. Annes. I have a high opinion of the air and climate of that coast. Londoners do not know of its beneficial qualities; they think Margate and Southend unbeatable.

SIR W. FERGUSSON.

When I went to King's College in 1855, Sir W. Fergusson was in the height of his fame, and the brilliancy with which he performed an amputation or a lateral lithotomy, or the delicate manipulation with which he operated for cleft palate, attracted a great many visitors to his theatre. Amputations, however, were becoming less and less frequent, as the conservative method of excising the diseased joint instead of removing the limb was becoming more generally adopted. Indeed, Sir W. Fergusson and Mr. Syme, of Edinburgh, were two of the chief pioneers in this branch of operative surgery. This was, of course, 12 or 15 years before the introduction of antiseptics, but since this great revolution in treatment, excisions have been more frequently undertaken and with more satisfactory results. But just as amputation has been superseded in suitable cases by excision,

so excision is superseded by arthrectomy. In this operation, instead of sawing off layers of bone, diseased foci only are gouged out, and the resulting cavities are disinfected by carbolic acid and packed with sterilised iodoform. Influenced by Sir William's great reputation, and attributing to him a power which he did not possess, many patients came to see him under the impression that he could restore to its normal flexibility and usefulness, in the course of a few days, an arm which had been fractured, and from which the splints had only just been removed. He always treated these people with great kindness and sympathy, and assured them that, in due course, the limb would be as good as it was before the accident. He also instructed them to come and see him again in three months, if, by that time the limb had not recovered its normal flexibility and usefulness. Knowing however, as he did, that most of these patients would not be satisfied unless they had "something to take," he almost invariably told his house surgeon to order them five grains of compound galbanum pills three times a day.

I had not seen Sir W. Fergusson after I left King's College in December, 1858, until I was asked to give chloroform for him whilst he removed a mammary tumour from a lady who was a patient of the late Dr. Hammond.

After the operation I dined with him at Dr. Hammond's house, and we both went to the station with him and saw him off to London by the limited mail at 10-40.

DR. WILSON FOX,

Physician to Queen Victoria.

On Wednesday morning, April 27th, 1887, I received a telegram from Sir William Roberts, of Manchester, asking me to see a patient with him at the Park Hotel, Preston, at four o'clock in the afternoon. About three o'clock a page boy came running without his cap to my house with a message for me to go at once to the Park Hotel to see a visitor who was very ill, and had fallen on the bedroom floor. On my arrival I found that the visitor was Dr. Wilson Fox, whom Sir William Roberts had wished me to see with him.

Dr. Fox had arrived in Preston on Tuesday evening, having joined Mrs. Fox at Bristol the same day. At Birmingham he walked about for half-an-hour. He made no complaint of not feeling well, but he remarked that he was glad to get away from the strain which he had undergone at his brother's deathbed. He conversed with Mrs. Fox until eleven o'clock, still giving no indication of not being well. Shortly before eight the following morning, when Mrs. Fox went to his bedroom, he told her that his temperature was 102° Fah., which fact she verified for herself. He said also that he had a slight rigor during the night, and thought he was gouty and rheumatic. Sir W. Jenner visited him on Friday, April 29th, and saw him in consultation with Sir Wm. Roberts. He was exceedingly weak, and Sir W. Jenner remained at the Park Hotel all night, but he stipulated that I must also sleep in the hotel and visit Dr. Fox if called up to do so, as he wished to remain in bed undisturbed. The pneumonia appeared to be running its ordinary course until Saturday morning, when shortly after ten o'clock great prostration occurred, and suddenly his breathing became much hurried, and he suffered from severe pain in the lower part of the right side.

Dr. Russell Reynolds, who had arrived in succession to Sir Wm. Jenner, was with him as soon as possible after the prostration had set in, and found that the pain was not pleuritic, but muscular, and that the chief trouble at that time was cardiac weakness. On the arrival of Dr. Russell Reynolds and Dr. Arkle, one of Sir Wm. Jenner's old pupils, I went away to Brighton in charge of an important Alderman, who was very much out of health, and would not leave home unless I went with him. On Monday morning at about ten o'clock, quite suddenly the dyspnœa increased, and fine bronchial rales could be heard on both sides of the chest. Prostration was extreme, and from this he never rallied, although taking nourishment and stimulants easily and freely until four o'clock on Tuesday morning, when, after a few minutes pallor, but in perfect possession of all his intellectual faculties he suddenly passed away. His second

wife, the widow of Captain Burgoyne, R.N., the Commander of the ill-fated "Captain," survives him.

Mrs. Fox gave me as a memento a diamond pin, which had been presented to Dr. Fox by Queen Victoria, and was, therefore, to be prized very highly.

A memorial tablet was erected in Preston Parish Church by his widow and sons, and the inscription on it was :—

TO THE HONOUR AND GLORY OF GOD,
AND IN MEMORY OF
WILSON FOX, M.D., F.R.S.,
PHYSICIAN-IN-ORDINARY TO QUEEN VICTORIA.
BORN 2ND NOVEMBER, 1831.
PASSED INTO REST AT PRESTON,
3RD MAY, 1887.

This screen was presented to the Parish Church of St. John, Preston, and dedicated on the Feast of St. Luke, the Evangelist, 1903.

Dr. Fox was in the habit of placing his beautiful house at Rydal at the disposal of the Bishop of Bedford for the use of the invalided East End clergy and their families.

MR. REGINALD HARRISON AND SIR THOMSON WALKER.

After the operation of Prostatectomy, I invited Mr. Harrison and Sir Thomson Walker to spend the weekend with me at Preston. When they came shortly afterwards, I invited some of the Preston medical men on the Saturday evening to meet them at dinner, and some of the others on the Sunday evening at supper.

On the Sunday afternoon I took them to Lytham, St. Annes, and Blackpool, and like others who have visited those three places, they took away with them a very favourable impression, and desire to visit them again.

SIR H. F. HEATH, K.B.E.

When I made his acquaintance he was Assistant Registrar at the University of London. He now holds a

very important position under the Board of Education. He and his wife stayed with me in Winckley Square for a few days on their way from Scotland to London. I took them to see the Infirmary, the Harris Free Library and Museum, the Harris Orphanage and the School of Domestic Science. They were very much pleased with all of them. Several years afterwards Sir H. F. Heath paid me a second visit, for one night only. On Whit-Sunday, 1919, I spent a very pleasant afternoon with Sir H. and Lady Heath at Ruislip, their beautiful country house.

SURGEON-MAJOR G. A. HUTTON, J.P.

(Late the Rifle Brigade; Hon. Organising Commissioner, St. John Ambulance Association.)

Generally when he has been sent to Preston by the St. John Ambulance Association to examine the local classes he has been my guest, and owing to his long and intimate association with the movement, his conversations on the subject were very interesting. He gave me a full account of early ambulance work in West Yorkshire, Lancashire, and the Isle of Man.

MR. R. C. IRWIN.

Mr. Irwin, who has recently been appointed Secretary of the London and North-Western Railway Company, was previously Secretary of the Lancashire and Yorkshire Railway at Hunt's Bank, Manchester. During a considerable portion of my long association with the Railway Company, he was a kind and considerate friend.

For over 30 years it was my custom to give from 40 to 50 nurses of the Preston Royal Infirmary an annual trip to Fleetwood and Blackpool. I always arranged the trip on two days nearest to the longest day, when it was high water at Fleetwood about noon. Mr. Irwin was good enough to supply me with free passes for them, and in the envelope enclosing these was generally included a note stating that he had sent instructions all along the line that Dr. Brown's nurses should have every attention. At

Fleetwood the nurses had the privilege of inspecting the large Belfast steamers, and they were also for several years taken for a two hours' sail in the tugboat. As some of the nurses, however, were unable to enjoy their lunch on their return from the sea, I thought it desirable to dispense with this form of entertainment. They had lunch at 1 o'clock at the Railway Refreshment Rooms at Fleetwood, and at 2-30 they went on to Blackpool and spent the remainder of the day there, had tea at the Talbot Road Railway Refreshment Rooms, and returned to Preston by the 10-30 train. In Blackpool so many sources of amusement were provided for them that they had a difficulty in deciding which to choose.

In mentioning the London and North-Western Railway Company, I must not fail to acknowledge the kindness and attention which I received from three officials in the Euston Station Offices—Mr. J. Burden, Mr. T. Burfitt and Mr. T. Hill. There was seldom a year before 1914 when I did not pay a visit to London. On each occasion when I returned to Preston, one of them secured a seat for me in the dining car, and one or all of them came to the station to see me off.

MR. THOMAS CARR JACKSON.

Mr. Thomas Carr Jackson was one of the surgeons to the Royal Free Hospital, Gray's Inn Road, London. He lived in the Euston Road, at the left-hand corner of Belgrave Street, in a house which was pulled down along with all the houses on the left side of Belgrave Street a few years ago. I believe that his father and my father were friends, but I know that he was a great friend to me.

When I went with my father to London in 1852, on the occasion of his being admitted an Honorary Fellow of the Royal College of Surgeons of England, we stayed at Mr. Jackson's house. I was also his guest in 1853, when I went up to London to undergo an examination in Classics and Mathematics at the Apothecaries' Hall, and also in 1855, when I passed the Matriculation Examination at the

University of London. When I went to London in October, 1855, to commence my medical curriculum at King's College, Mr. Jackson kindly secured lodgings for me at 14, Belgrave Street.

During the whole of my residence as a medical student in London, I received great kindness and hospitality from him, and after I had commenced practice in Preston, he took a great interest in my welfare and success.

SIR WILLIAM JENNER.

I first saw Sir William Jenner in November, 1861, when I was undergoing my examination for the second M.B. degree at the University of London. He asked me how I was getting on with my papers, and spoke a few kind and encouraging words to me.

I next saw him in 1886, at the laying of the foundation stone of the Exhibition Hall on the Thames Embankment by Queen Victoria.

The second interview with him was at the Park Hotel, Preston, when he came to visit the late Dr. Wilson Fox, during his fatal illness.

He invited me into his room, and whilst he sat on the edge of the bed, I had a pleasant chat with him.

LIEUT.-COL. T. R. JOLLY, V.D., J.P., M.B.E.

I cannot remember exactly how long I have had the pleasure of Colonel Jolly's acquaintance, but I do know that he is one of my oldest and most highly esteemed friends.

For many years I have been associated with him in connection with the Harris Orphanage, the Harris Council, the Harris Institute, and the School of Domestic Science in Glover's Court. The able manner in which he has dealt with all details connected with these institutions has surprised and gratified the members of the respective Committees. His power of organisation is something wonderful, and without it he could not possibly discharge satisfactorily his many duties.

For his long connection with the Preston Volunteer

Artillery he was awarded the V.D. He has displayed a patriotism which has been the admiration of his fellow townsmen. He acted as chief Military Representative for Preston and District, for which he was also awarded the British Empire decoration by our present King George V.

During the last few years he has frequently taken his seat on the local Bench at the Police Court. His well-balanced judgment has been of great value and assistance to his brother magistrates.

During my recent illness he has constantly visited me, and given me much consolation and encouragement.

As President of the Harris Orphanage Committee, it gives me much pleasure to say that it would be impossible to find a more efficient Governor than Colonel Jolly, or one who considers more the welfare and happiness of the officials and children.

DR. T. N. KELYNACK.

I was introduced to Dr. Kelynack by the late Dr. Dreschfeld at Manchester in 1899, and received very valuable instruction from him in connection with Dr. Dreschfeld's patients in the Manchester Royal Infirmary.

When he was physician-in-charge of the Mount Vernon Hospital for Tuberculosis at Northwood, he and his wife very kindly invited me to spend a night there, and I was much impressed with what I may term the palatial character of the establishment.

When Dr. Kelynack, as general medical adviser of the National Children's Home and Orphanage, comes to examine the children at the Lancashire branch of this great Institution, at Edgeworth, near Bolton, he generally spends the week-end with me, and the comparison of our experiences during the interval between 1899 and the day of our interview is a very delightful occupation.

DR. EDWARD LIVEING.

Dr. Edward Liveing, brother of Dr. R. Liveing, was also educated at King's College, London, but he had left

before I went there. He was the Registrar at the Royal College of Physicians for many years, and it was always a great pleasure to me to have a chat with the dear old man.

On August 4th, 1912, I had a letter from him in which he said that he had been staying for a few days with his brother, a Fellow of St. John's College, Cambridge, and

> We spent one afternoon in paying a surprise visit to the Research Hospital in which you had generously interested yourself. Dr. Strangeways was most kind in receiving us, and showed us all over it, explaining its many and excellent provisions for research purposes. His energy and enthusiasm are delightful. I thought the situation good, and the designing and construction of the building and its equipment, admirable. We saw a good many of the patients, and Dr. Strangeways and his lady assistant were good enough to give me many interesting bits of information with respect to several of the cases. The wards are most homelike and inviting, and the patients appeared as happy in their surroundings as the circumstances of their maladies would permit. I am thankful not to be suffering from Rheumatoid Arthritis, but if I were I should be only too thankful to be taken in there. I have four grandsons who have joined the New Army.

He concludes his letter with some lines which he recommends me to copy :—

> If the tide is running strong, keep on pulling,
> If its Winter or it's May, keep on pulling,
> If you can't see e'en a ray,
> The sun is bound to shine some day,
> It's got to come fore long your way,
> Keep on pulling.

DR. ROBERT LIVEING.

Dr. Robert Liveing was a prominent member of the group of four King's College students, which consisted of Dr. Easton, Dr. William Cayley and myself. Previous to coming to King's College he was at Christ's College, Cambridge, where he was on intimate terms with two of my brothers who were undergraduates at the same time, and at the same college.

After he had taken his degree he was appointed one of the physicians of the Middlesex Hospital, and devoted himself especially to the study and treatment of diseases of the skin. He practised for many years as a specialist in this department in Manchester Square. A few years

before he died, his eyesight failed, and as a result of a paralytic affection he was altogether confined to bed.

It is an interesting coincidence that the elder of my brothers, who was with him at Christ's College, Cambridge, became Vicar of Nayland, in Surrey, which was Dr. Liveing's native place.

In December, 1910, Dr. Liveing wrote to tell me that Mr. Arnold Lawson had operated on his eye for cataract last July, with a good result, and he can now read, which he had not been able to do for the past few years.

Some little time after the operation on his eye he wrote :—

I have only one eye. It keeps fairly good since Arnold Lawson operated on it for Cataract. The chief trouble is that one cannot in the least judge of distances, and cannot walk out in the streets with any safety. Still it is a great thing to be able to see to read after being quite blind.

A few years previously he wrote :—

I used to sit near your brother Richard in Hall at Christ's College, Cambridge. He was in the next year to me, the year above.

Alluding to a mutual friend, he says :—

Cayley is very well. His time is just up at the Middlesex Hospital, so he will retire this Autumn. He is about to give up practice, and is going to live at Richmond, in Surrey, if he can get rid of his house in Wimpole Street.

In another letter he writes :—

My son, Captain Charles Liveing, R.A., will shortly be moved from Woolwich to Preston. He is just going to be married. I shall be much obliged if you can find out for him if there is any hotel near the Royal Artillery Barracks? Are there any good furnished lodgings near the Barracks?

He writes on January 3rd, 1915 :—

My son, whom you may remember, is now Major, and he has got the D.S.O. and the Cross of the Legion of Honour. (The highest cross). I have had a series of fits, and have been confined to my bed since April last, having lost all power in my legs, and much in my arms. My two nurses get me out of bed daily, but with difficulty.

SIR JAMES MACKENZIE.

The morning after the conversazione at the Royal College of Physicians, I met Sir James Mackenzie by

appointment at the London Hospital, Whitechapel. At that time he was carrying on a very important series of investigations in connection with the subject of diseases of the heart. He had a specially trained band of assistants, who were making observations on pulse, temperature, and other symptoms during the twenty-four hours, and keeping an accurate record of their observations, and especially with reference to the effect of Therapeutic agents.

The collection of electrical appliances was extremely interesting, and would have been much more so if I had been more intimately acquainted with the science of electricity.

SIR MORELL MACKENZIE

PHYSICIAN TO THE GERMAN EMPEROR FREDERICK.

When I was a student at King's College, London, from 1855 to 1858, Sir Morell Mackenzie was receiving his medical education at the London Hospital, Whitechapel. We both attended tutorial classes conducted by Dr. John Langdon Haydon Down, who subsequently became medical superintendent of the Asylum for Idiots at Redhill, Reigate, Surrey. When Sir Morell Mackenzie had obtained his licence to practise, he devoted himself entirely to the treatment of diseases of the throat, and obtained a great reputation by his dexterity in the use of the laryngoscope. This instrument was introduced into London by Dr. Czermak in 1862. It is now very extensively used all over the world. Sir Morell Mackenzie soon acquired a very extensive practice, and people who called at his house to consult him sometimes found his rooms so full that patients were sitting on the front staircase. When I was in London in September, 1865, undergoing my examination for the membership of the Royal College of Physicians, one of my fellow candidates was Dr. Balthazar Walter Foster, of Birmingham, who was a friend of the late Mr. Gladstone. It appears that he was staying with Sir Morell Mackenzie and mentioned to him that a man named Brown, of Preston, was also up for examination. On hearing this Sir Morell Mackenzie instructed Sir Walter Foster to invite me to dine with him

at his house in Weymouth Street, Portland Place. I was glad to accept his invitation, and spent a very pleasant evening in his company. Sir Morell Mackenzie afterwards acquired a world-wide notoriety among German and British medical men by his attendance on Frederick, Emperor of Germany, father of the demon who was the cause of so much sorrow and suffering during the recent war. Although he was no doubt overjoyed when he was called in to attend the Emperor, circumstances occurred which probably made him wish that he had never had anything to do with the case.

In Sir Morell Mackenzie's account of the illness of the German Emperor, he says :—

> I was treated with contempt, jealousy, and suspicion by the German Professors, who schemed against me both before and after the death of the Emperor. My life was threatened if I walked down Unter den Linden, and I was vilified with false accounts by a "reptile Press," inspired by the German Professors themselves.

The Emperor died at Potsdam, June 15th, 1888, and Sir Morell was with him at San Remo in November, and again in December of 1887, and again in January, 1888. Afterwards, at Charlottenburg, and on to Potsdam on the 1st of June, where Mackenzie was in attendance until a few days after his death. He was in attendance on and off from May 20th, 1887, to June 15th, 1888.

DR. HENRY MAUDSLEY.

I made the acquaintance of Dr. Maudsley in October, 1855, when I went to London to commence my Hospital education at King's College. I took a letter of introduction to him from his brother William, who was an articled pupil with Mr. Barnes, a Chemist in Fishergate, Preston. I occasionally went to see him when he was house surgeon to Mr. Richard Quain at University College Hospital, and I remember that on one of my early visits I found him in a semi-reclining position on a couch making notes from Lawrence on ruptures. He was at that time preparing for the second M.B. examination at the University of London, which he passed in 1856, obtaining the Scholarship and Gold

Medal in Surgery. After this success he was disposed to practice pure surgery, but he subsequently decided to give his attention to mental disease, and I visited him when he was at Brentwood, in Essex, and also the Royal Manchester Lunatic Hospital at Cheadle. Although we occasionally corresponded, I did not see him again until he surprised me by calling at my house. He spent the greater part of the next day with me, and I took him to two institutions in which I am much interested, the Preston Royal Infirmary and the Harris Orphanage. I also took him to spend a few hours at Blackpool, which interested him very much, as he had heard a great deal about its popularity, and he was not surprised at its being such a favourite seaside resort. Both in his letters and in conversation he expressed his indignation with the London County Council on account of their delay in making use of the £30,000 which he gave them for the erection of a hospital for the treatment of the early stage of mental disorder, in order, if possible, to prevent the necessity arising of sending a patient to an Asylum. It is a sad reflection that owing to the delay on the part of the London County Council he died before his wishes were carried out. Dr. Maudsley took a great interest in the candidates who were successful in gaining exhibitions, scholarships, and gold medals at the University of London and especially in those who were educated in University College Medical School. Although he was fond of reading monographs, he told me of some successful candidates who did not go beyond the ordinary text books, and he mentioned more than once to me the name of Dr. George Buchanan, who ultimately became head of the Local Government Board Medical Department, in succession to Sir John Simon. One or two more reminiscences of Dr. Maudsley are worth recording.

When I was working very hard for my first M.B. examination at the University of London, he called one afternoon at my lodgings, 14, Belgrave Street, King's Cross, when I had gone for a walk. He asked the maid for half a sheet of paper, and on it he wrote :—

That a man whose only object is to kill time should be wandering about at this time of the day is not a matter for surprise, but that one who is on the eve of a most formidable examination, which will tax his powers to their utmost capacity, should be idling away as if they were of no value the few precious hours which remain to him, cannot but excite in the mind of one who takes a great interest in his welfare a feeling of the most profound and sorrowful regret.

He left this on the table unenclosed in an envelope.

A few years before he died I mentioned in one of my letters several incidents which occurred when he was Mr. Richard Quain's House Surgeon at University College Hospital. In his reply, which was an open post card, he said :—

A man who has such a memory for detail as you appear to have ought to be buried in his back garden.

MR. E. W. MELLOR.

In 1905 I received an invitation from Mr. Mellor to be present at the opening of a new Operating Theatre in the Lytham Cottage Hospital, of which he was the President. I afterwards had luncheon at his house, Fair Lawn, Lytham, where I met Canon Hawkins, the Vicar, and several other Lytham friends. This was the commencement of a valuable friendship between me and Mr. and Mrs. Mellor. Since then I have been a frequent visitor at Fair Lawn, and enjoyed the society of Mr. and Mrs. Mellor, and hearing and playing upon their chamber organ. When I opened the Research Hospital at Cambridge, Mr. Mellor did me the honour of attending the ceremony. Mr. and Mrs. Mellor have been extensive travellers, and Mr. Mellor has preserved interesting records of their travels in photographs taken by himself. He also possesses a valuable cinematograph. He has afforded much pleasure to many people by giving exhibitions and lectures. Mr. and Mrs. Mellor were my guests for the night at the opening of the Grammar School Organ at Moor Park Avenue, and distribution of prizes by Dr. James, Master of St. John's College, Oxford. He and Mr. Standley, his companion, subsequently met them at dinner at my house the same evening.

SIR NORMAN MOORE.

I first met Sir Norman Moore, President of the Royal College of Physicians, at the opening of the Cambridge Research Hospital (where he delivered a very interesting and instructive address), and the same evening we dined at Sir Clifford Allbutt's house. Since then I have had the pleasure of seeing him occasionally at the Royal College of Physicians, and have had several interesting and instructive letters from him.

In May, 1918, I wrote to ask his advice in reference to the old editions of medical books as to whether it was desirable to keep them or destroy them. His reply was :—

> A complete or even a numerous though not complete series of the editions of any medical book is well worth preserving. I wrote some 450 lives of British Physicians in the Dictionary of National Biography, and such series were often most useful to me in tracing the career of Physicians, the steps in whose professional life had long been forgotten. The dates and localities given in their prefaces were often the only record of where the physicians had lived.

Writing from Hancox, Battle, January 3rd, 1919, he says :—

> I have come here to my country house till Monday. All these past years since 1914, we have heard the guns in Flanders, and now it adds to the perfection of the country that all sounds of war are ended.

In October, 1919, I sent to Sir Norman Moore a copy of an address I had delivered to the Fylde Medical Society on " Music and Medicine."

He shewed his intimate acquaintance with the subject by several very interesting illustrations of it, and concluded his letter by saying :—

> I do not mention these additions as defects in your charming essay, but only as shewing how much there is in your subject.

SIR F. W. MOTT, K.B.E.

Sir F. W. Mott, K.B.E., one of the greatest authorities on War Neuroses and Shell Shock, and the extensive writer on many other subjects, attracted me by his supplementary obituary notice of the late Dr. Henry Maudsley. I afterwards wrote to tell him how intimate I had been with Dr.

Maudsley, that I had been his guest when he was at Cheadle, and also at Brentwood, in Surrey, and had watched with much interest his advancement to the high position which he ultimately held. I forwarded to Sir F. W. Mott all the letters which I had received from Dr. Maudsley, including the memorable open post card on which he wrote :—

> A man who has such a memory for detail as you appear to have ought to be buried in his back garden.

I felt much sympathy with Dr. Maudsley in his annoyance with the London County Council for their delay in making use of the £30,000 which he gave to them for the erection of a hospital for the treatment of incipient mental disease. This building has been erected at Lavender Hill, and it was not completed until after Dr. Maudsley's death, so that he was deprived of the satisfaction of seeing his good intention carried out.

Referring to an article in the *British Medical Journal* on the philosophy of music, Sir Frederick Mott observes (September 27th, 1919) :—

> May I be allowed to say that two years ago I started singing as a health restorative to the nervous system of soldiers convalescent from war neuroses, and through the energy and interest taken by the Countess Dowager of Carnarvon, " Vocal Therapy," for restoration through speech and song and correct breathing, has received the widest support, and has already accomplished much.

The Secretary's Office of the Vocal Therapy Fund, for which Sir Frederick seeks support (1919), is situated at 32, Charles Street, Mayfair, W.7.

SIR BERKELEY MOYNIHAN.

I had often heard of the great reputation of Sir Berkeley Moynihan, but I only made his personal acquaintance in 1911, when I went to Leeds to see him operate on one of my patients. The operation was one of which the late Sir Thomas Watson said " there is no operation more beneficent in its design, nor successful in its results, than that which is undertaken for the removal of gall stones." From the subsequent history of this patient's case, I can confirm Sir Thomas Watson's remarks.

I regarded it as a great pleasure and privilege to be present at what was, in every sense, a very successful operation, and under such circumstances to make the personal acquaintance of Sir Berkeley Moynihan.

MADAME NORMAN NARUDA.

Madame Norman Naruda was one of the most important instrumentalists who was engaged by the Musical Committee of the Preston Guild of 1902. Her reputation as a violinist was one of the highest to be obtained. My sister and I had the honour of entertaining her and her sister during the Guild Week. She made me feel that I was incurring some responsibility when she told me that her violin was valued at £5,000. It interested me to recall that at the Guild of 1882 I sat next to her husband, Sir Charles Hallé, at a luncheon given by the Guild Mayor.

DR. OMEROD.

Dr. Omerod, the Registrar of the Royal College of Physicians, did me the honour of calling upon me when he came to Preston on behalf of the College to examine the chemical and physical laboratories of the Preston Grammar School, Moor Park Avenue, with a view to its being recognised as a properly equipped teaching centre.

I was the more interested in his visit on account of my association with his son, Captain Omerod, who was Assistant Chief Constable of Lancashire until he was called upon to rejoin his regiment during the war.

I was also the more interested in Dr. Omerod because he was the successor to my dear old friend, Dr. Edward Liveing, who had held the office for so many years.

SIR WILLIAM OSLER.

I was introduced to Dr. William Osler, as he then was, by my friend, Dr. Collinson, of Preston, at the annual meeting of the British Medical Association at Belfast. Shortly afterwards we met accidentally in London, at a meeting of the Royal Society of Medicine in 1 Wimpole

Street, W., when I was surprised that he recognised me, and still more so when he invited me to spend a few days with him at 13, Norham Gardens, Oxford. He arranged a day and hour when I must meet him at the Royal College of Physicians, and travel with him to Oxford by the Great Western Railway in a dining car. I was much impressed by the affectionate embrace which he received from his wife on our arrival at Norham Gardens, and by the hearty welcome which she gave to me. On hearing from his wife that a niece who had come on a visit was ill, Sir W. Osler said to me, "Brown, just run upstairs and see what is the matter with her." I was a little afraid that I might not be able to make a correct diagnosis, but my embarrassment disappeared when I found that the young lady had measles.

Sir W. Osler gave up a morning to show me several of the colleges, and, with the aid of a guide to Oxford, I inspected the exterior and grounds of others. On the Friday afternoon he went with me to the service at Magdalen College; and at the conclusion of it to the choir vestry, to see Dr. Varley Roberts, the organist, whom I had once the pleasure of meeting at luncheon at the house of a mutual friend, Mr. Standley, at Lytham, a pleasant little seaside place, about 12 miles from Preston and nine from Blackpool.

On the day following my arrival at Oxford, Sir William gave a dinner to the members of the Book Club, of which he was the President. He described his guests, of whom there were 16, as University Readers, and some of the most learned men in the world. One of them who sat on my right was an eminent geologist, and I was the more interested in him when he told me that he had been in Preston to see one of His Majesty's Inspectors of Schools. I felt a little embarrassed when Sir William gave me the position of honour on his right, but the after reflection on his dinner party and the kindness which I received from him and his guests, made an impression on me which I shall never forget. When I said "Good-night!" to Lady Osler,

after the dinner party, she said, "I have just been up to your bedroom to see that there is a good fire in it."

A year or two after this pleasant experience, I met Sir William Osler again at one of the Royal Society of Medicine meetings, and was invited to dine with him at the Automobile Club. His other guests were a wealthy American friend and Mr. Horace Barlow, the Assistant Librarian of the Royal College of Physicians. Although this visit was paid before the outbreak of war in 1914, he showed me the preparation which had been made in the provision of beds and other appliances for converting the building or a portion of it into a hospital.

Shortly after my visit to Oxford I received the following letter :—

Dear Dr. Brown,

I send you a reprint of your namesake's "Religio Medici," which we have just issued from the Clarendon Press. If you and the author have not common ancestors, at any rate you have common traits.

In September, 1914, I received a letter of which the following is a copy :—

Kind man,— Please give me a subscription for the Louvain Professors. We are arranging to look after them for the winter, and it is a big job. Professor Deny's wife and five children came to us to-day. Nothing saved—house, library, and laboratory all gone. He is the distinguished bacteriologist. Lady Osler sends greeting.

On September 14th, 1914, he wrote :—

Kind man for your bis-dat-gift, which I shall hand over quietly to a young Belgian Professor, who has apparently only escaped with his clothes, and wife and children, and one precious manuscript from the Library, which he had in the house with him.

On July 7th, 1919, he wrote :—

So nice to have the clippings and to see that you have got your coat off about Tuberculosis, and as Roosevelt would say, "are still in the ring."

On January 4th, 1915 :—

It was so good of you to have done so much for poor Van Gehuchtein, in Cambridge, whose death is a sad loss.

SIR JAMES PAGET.

I was asked to give chloroform to a lady a few miles

from Preston, when Sir James Paget had arranged with her to remove a mammary tumour which was causing her much anxiety.

We arrived at her house just as she was returning from a drive in her victoria, and we had to wait until all the necessary preparations had been made for the operation.

During this interval, Sir James told us that he really thought this good lady would live longer if she did not undergo an operation, but she had importuned him so much to perform one, and that she looked with so much anxiety on the continued presence of the tumour, that he had very reluctantly consented to carry out her wishes. She was a most unfavourable patient for either an anæsthetic or surgical interference, on account of her stoutness, and my mind was much relieved when she recovered from the immediate effects of the chloroform. She went on favourably for a few days, and then died from septic pneumonia at the end of a fortnight. I am afraid that all the up-to-date precautions were not carried out, although I did not see the lady again after the day on which I administered the anæsthetic.

SIR RICHARD DOUGLAS POWELL.

Shortly after I had received the intimation that I had been elected a Fellow of the Royal College of Physicians, Sir Richard Douglas Powell wrote a letter to me stating that as he was the President of the College, it would be his official duty to induct me. He also invited me to be his guest at the dinner in the evening, at which the President, some members of the Council, and other Fellows were also present.

Between the conclusion of the ceremony in the afternoon and the dinner in the evening, Sir Douglas Powell took me in his motor car to his house, 62, Wimpole Street, Cavendish Square, and showed me his library and other objects of interest. He also drove me back to the College. As I was then 72, I regarded this kind attention as a tribute of respect for my age, and appreciated it very much indeed. I had previously corresponded with Sir Douglas Powell, and had

availed myself of his valuable advice and guidance, but I had never before had the pleasure of seeing him.

DR. KENDRICK PYNE.

I had often heard of the great reputation of Dr. Pyne as the Organist of the Manchester Cathedral and the Professor of Music at the University of Manchester, but I never had the pleasure of making his acquaintance until one day, during the summer months, I met him on the road between Cleveleys and Blackpool. He was taking a walk with my nephew, Frederick Gregson Shuttleworth, the Organist of St. Mary Abbots, Kensington, and he introduced us. He was my guest on two occasions from Saturday to Monday, and both I and the friends whom I invited to meet him highly appreciated his company and his conversations. On one of the Sundays he kindly consented to read the lessons at the Church which I attended, and the members of the congregation were much impressed by the contrast between his elocution and that of an ordinary clergyman. He made the slight mistake of reading the whole of one of the chapters assigned for the lesson, when he ought only to have read a portion of it, but this was regarded as a pleasurable rather than a culpable error. Dr. Pyne was quite at home in the various rooms in my house which contained books, and his happiness appeared to be much increased by the frequent indulgence in a good cigar.

MR. SIMS REEVES.

Mr. Sims Reeves, whose lovely tenor voice always afforded very great pleasure to all sorts and conditions of men who possessed an ear for music, was one of the principal vocalists at the Preston Guild of 1862. During the Guild Week he resided at Farington Vicarage, about three miles from Preston. One day I was sent for to visit him at the Park Hotel, Preston, for the purpose of giving a certificate stating that, in consequence of a slight cold, he was unfit to sing at one of the East Lancashire towns the following evening. He told me that he had made up his mind never

to sing in public unless he was in good voice, and that by doing so he had lost many thousands of pounds and been the subject of very unpleasant imputations. I was very much interested in my conversation with him, especially when he told me that he had been the organist at a church when he was only 12 years of age, and that when he travelled he always took his own sheets lest he should be placed in a damp bed.

SIR B. W. RICHARDSON.

A few years ago, three members of the Preston Temperance Society came to my house to ask if I would oblige them by taking the chair at a lecture on the "World Without Wine," which they had arranged to be delivered by Dr. B. W. Richardson, the inventor of the "lethal chamber" for the painless destruction of dogs and other animals; the author of "Hygeia, a City of Health," and many other articles. I told them that I was a most unsuitable person to be their chairman, as I regarded myself as a moderate drinker and had been condemned by Mr. Joseph Livesey, one of the six Preston pioneers of the great teetotal movement. Mr. Livesey is reported to have said that he had more hope of a drunkard than he had of a moderate drinker, and I may say that I am almost a total abstainer. After I had made the above introductory remarks, I told the deputation that I should be glad if Dr. Richardson would make my house his home during his visit to Preston, and that it would be a pleasure to me to preside at the meeting. I invited some of the Preston medical men to have a cup of tea before going to the lecture, and a few others to have supper with him after. As I was on the point of leaving the house, a telegram was handed to me, sent by a medical man at Blackpool whom I had *not* invited, and whom I knew was anything but a sympathiser with the temperance movement. Someone had told him about the proposed lecture, and my intended entertainment, and his telegram ran thus, "Sorry that the Mayor and I cannot arrive in time for the tea, but please leave the brandy on the sideboard."

LORD ROBERTS.

Some time after I had retired from the 3rd Royal Lancashire Militia, I joined a society called the Red Rose Club. Past and present officers of the Militia were invited to become members of it, and I was one of the earliest to join. A dinner was held annually in different towns and cities, amongst them were Preston, Liverpool, Manchester, London, and other places.

I had the pleasure of being present at a dinner which was given by the Society at the Savoy Hotel to Lord Roberts. All those who had accepted the invitation received an intimation that the cook (who was said to have £5,000 a year) was particularly anxious that the dinner should commence punctually at the minute fixed for it to do so, that justice might be done to him and his very carefully prepared menu, and an endeavour was made to observe the injunction. Lord Roberts, however, arrived half an hour late, for which he made an ample apology, and explained that he was under the impression that the dinner was to take place at the Hotel Cecil. On enquiring there, however, he was told that they knew nothing whatever about it. He was therefore obliged to go to the West End to read his invitation card in order to obtain the correct address.

The allusion to the Savoy cook and his £5,000 a year recalls to my mind the experience of a gentleman who was in the habit of inviting a few friends to dine with him at some hotel which had a reputation for the excellence of its catering. In the early part of his experience, he was so much pleased with one of the dinners that he said he would like to see the cook. He expected to see a stout, red-faced lady, and he took out of his pocket a guinea to present to her. To his surprise the cook came up, but he was a gentleman in evening dress. The host was at first a little embarrassed, but he put his hand in his pocket, took out a larger amount, and asked the gentleman in evening dress to distribute his gift amongst the persons who had taken part in the preparation of the excellent dinner.

FREDERICK GREGSON SHUTTLEWORTH.

Frederick Gregson Shuttleworth, organist of St. Mary Abbot's, Kensington, is my nephew. He succeeded the late Mr. Henry Bird, with whom he had been assistant for 25 years.

He is the son of Thomas Moss Shuttleworth, late Clerk of Assize of the Northern Circuit. His grandfather, Thomas Starkie Shuttleworth, previously held the same appointment for many years.

His brother Arthur is an Associate of the Northern Circuit.

During the war, Dr. Stanley Marchant, the sub-organist of St. Paul's Cathedral, was in the Army. His place in the Cathedral was taken by Mr. Reginald Yarrow, organist of St. Jude's, South Kensington, and a former chorister at St. Paul's. Mr. Yarrow was later on "called up," and Mr. Shuttleworth took his place, sharing the duties of sub-organist with Mr. Glanville Hopkins, a nephew of the late Dr. E. J. Hopkins. Mr. Shuttleworth was also put on the staff of pianoforte teachers in the choir school, and still holds the position of a music master there, occasionally taking the boys' rehearsal for the daily services, and frequently playing the organ in the Cathedral at the morning and afternoon services.

MR. ALBERT SIMPSON.

When I was a Certifying Surgeon under the Factory Act, I frequently met Mr. Albert Simpson at one or other of his factories, where he was largely engaged in business as a cotton spinner and manufacturer.

After receiving many kind invitations to visit him at Burghill Grange, Hereford, I went there, and enjoyed my visit exceedingly. Mrs. Simpson met me at Hereford Station, and gave me a pleasant three miles drive in her pony car.

Burghill Grange is a model country house as regards size, surroundings, situation, and internal arrangements.

There is much evidence in the village of Mr. Simpson's

kindness and forethought in providing a Club House and Library for his neighbours, and an organ for the Church, and in many other ways he has endeavoured to promote their welfare and happiness.

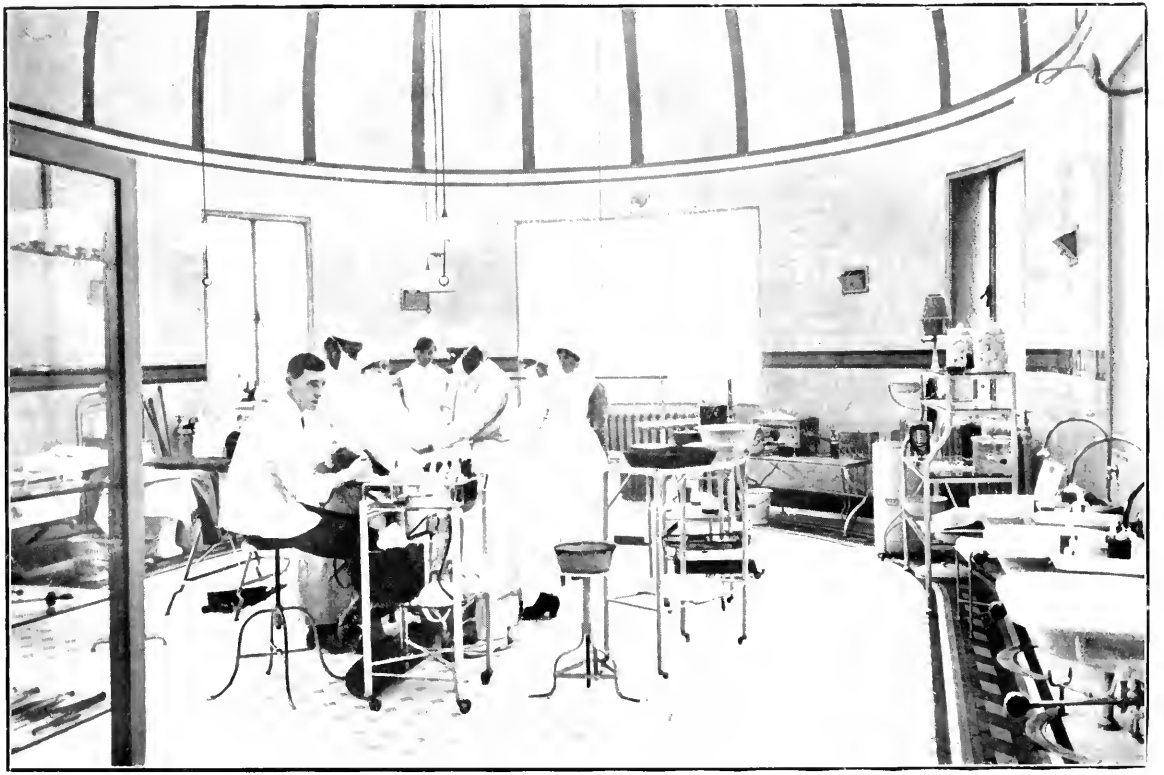
Mr. Simpson is such an eminent authority on investments that he communicated a great deal of valuable information to me on that subject, and made me more comfortable in reference to some in which I had great interest.

I cannot speak too highly of the kindness and hospitality of Mr. and Mrs. Simpson, which made such an impression upon me that I gratefully accepted from them another invitation, and paid a second visit to them in 1913, on my way to Osborne.

Mr. Simpson was High Sheriff for Radnorshire, 1907 and 1917. In 1907 he was appointed a County Magistrate for Lancashire, and since then for three other counties.

SIR JAMES YOUNG SIMPSON.

The name of Sir James Young Simpson recalls to my mind the great kindness which I received from him in the early part of 1862, and for which I became indebted to him through circumstances connected with what was known as the "Cotton Famine." This famine was due to the great war between the Northern and Southern States of America, and it lasted from 1861 to 1865. The cotton trade of Lancashire was paralysed by it, and there was great poverty amongst the operatives. Preston was one of the most distressed of the Lancashire towns, and when a knowledge of this reached Sir James Simpson he sent his nephew, Dr. Alexander Russell Simpson (now Sir A. R. Simpson) and his own son David to investigate some of the most distressed cases and distribute relief amongst them. I was at that time resident Medical Officer of the Preston Dispensary, and as my duties brought me into contact with some of the worst cases of distress, Sir A. R. Simpson and his cousin were recommended to make my acquaintance. In consequence of the attention which I had shown to them, I received a very kind invitation from Sir James to visit Edinburgh for a



PRESTON ROYAL INFIRMARY—OPERATING THEATRE

few weeks, and to attend at his house, 52 Queen Street, every evening to see the work carried on by his two assistants, Dr. A. R. Simpson and Dr. J. Watt Black, who subsequently removed to London and became attached to Charing Cross Hospital. I went to Edinburgh on March 10th, 1863, the wedding day of the late King Edward the Seventh, and remained there about six weeks. The patients who came to 52, Queen Street, to see Drs. A. R. Simpson and Black were chiefly well-dressed females, who never seemed to pay any fee, but on leaving the house were presented with a religious tract along with the prescription. In addition to having a knife and fork always at my disposal, I was invited to dinner on certain special occasions, and I remember that, on one of these, I met Dr. Alexander Wood, The President of the Royal College of Physicians of Edinburgh; Dr. Andrew Wood, the President of the Royal College of Surgeons; and Dr. Littlejohn, the Professor of Forensic Medicine. Their conversation was, of course, very entertaining, and it was rendered all the more so by the constant discharge of volleys of puns, for the utterance of which each of them seemed to have a special faculty. When I left Edinburgh I went for a few weeks to the Rotunda Hospital, Dublin, and I again experienced the advantage of having made Sir James Simpson's acquaintance in receiving from him letters of introduction to Sir William Wilde (father of the late Oscar Wilde), Sir William Stokes, Professor Philip Crampton Smyly, an eminent surgeon, and Dr. Denham, the Master of the Rotunda Hospital.

MR. HENRY SMART.

I was at Christ Church, Preston, in August, 1865, when Mr. Henry Smart opened the new organ, and was delighted to have the opportunity of hearing a musician who possessed such a wonderful faculty for producing harmonious sounds. On Advent Sunday, 1876, when I was staying at the Euston Hotel, London, I went across the Euston Road to St. Pancras' Church, where Mr. Henry Smart accompanied the service on one of Henry Willis's fine organs. I was

very much impressed with his treatment of a hymn tune which was an adaptation of "Sleepers, Awake!" from Mendelssohn's oratorio, "St. Paul." I was subsequently very much interested in the obituary notice of Mr. Henry Smart which appeared in the "Tonic Sol-fa Gazette." I ought to mention that the choir at St. Pancras Church at that time consisted only of the members of the congregation, school children, and young men from a neighbouring Training College, and that the singing was entirely in unison. As Mr. Smart was afflicted with blindness, he had a boy standing by him in the organ loft to tell him the subject of each succeeding verse, in order to adapt the harmony of which he had such a master knowledge to the words.

MR. F. W. SMITH.

I first met Mr. and Mrs. F. W. Smith at the wedding of their son, F. J. Smith, to Susan, daughter of my dear friend the late Dr. Dunn, of 25, Winckley Square, Preston. From that day to this it has appeared to be the wish of Mr. Smith to show me as much kindness and attention as possible.

Mr. and Mrs. Smith have frequently entertained me at their beautiful house, Woodville, Longridge, where the lovely gardens and conservatories are well known to be as fine as any in the County of Lancaster. Mr. Smith possesses a wonderful knowledge of flowering plants, and his views on horticulture (which he seems to have great pleasure in imparting to others) constitute him a very high authority on such matters.

For several years in succession he has invited me to stay with him and his family at the Low Wood Hotel, Windermere, and each morning his great anxiety seems to have been to make my day's enjoyment as great as possible. He has endeavoured to show me some of the most beautiful scenery in the Lake District, and I must especially mention a garden near the Low Wood Hotel, which contains a collection of shrubs probably unsurpassed, if equalled, in any garden in England.

THE REV. GEORGE SMITH

(Chaplain to the Forces.)

The Rev. George Smith lived at Sumner's Hotel, Fulwood, from April, 1898, to November 27th, 1918, and passed away there.

I frequently entertained him at 27, Winckley Square, and also met him at the houses of some of my friends.

On account of the active part which he took in the defence of Rorke's Drift during the Zulu War in 1879, in combination with Lieutenant Chard, R.E., and Lieutenant Bromhead, 24th Regiment, it was thought by many people that he ought to have been awarded the Victoria Cross.

During a portion of the time my nephew, the late Major George Lamont Hobbs, the Connaught Rangers, was at Malta, the Rev. George Smith was also there. In after years, when they met again in my house, it was interesting to hear them comparing notes of what they heard and saw when they were in Malta.

DR. T. P. S. STRANGEWAYS

(Huddersfield Lecturer on Pathology.)

Dr. Strangeways called upon me one day in 1904, to tell me that he was engaged in endeavouring to establish a Hospital at Cambridge, for the purpose of studying one disease only at a time, and that it had been decided to commence with what is known as "rheumatoid arthritis." He wished me to call a meeting of the Preston medical men to make known to them the object of his visit to me, and to enlist their sympathy and help in promoting the success of his work. I also assisted him by writing to some medical friends in Lancaster, to which place he went the next day and had a very kind and encouraging reception.

In 1912 I had the honour of opening the new Research Hospital at Cambridge, and since then the study of rheumatoid arthritis has been carried on not only in the hospital, but in all parts of England, Scotland and Wales. An arrangement has been made by which intimation has been sent from the house in which the rheumatic patient

is living, and Professor Strangeways or one of his colleagues has visited and examined the patient and taken accurate notes of his condition and history.

A pathological museum has been formed, to which new specimens are added as occasion offers. This collection has been made in order that Dr. Strangeways and his assistants may be in a position to demonstrate the various changes which occur in the joints in rheumatoid arthritis and other similar diseases.

MR. OWEN THOMAS AND HIS ATTIRE.

Mr. Thomas, the inventor of the splint which bears his name and has been the means of giving comfort to, and promoting the health of, many invalids in all parts of the world, came over to a village near Preston to see a patient with me in consultation. The man was suffering from caries of the bones of the right foot, following a fractured leg, and pus was flowing freely from several sinuses. Mr. Thomas arrived in a station cab carrying a zinc pail or bucket containing his antiseptic sawdust and two or three netted articles which looked like dishcloths. He wore a little cloth cap with a bright button on each side for the attachment of a strap to be fastened under his chin to prevent his cap from being blown off on a windy day. His coat sleeves were rather short, and he did not wear gloves. Another medical man and I thought that the case was one in which amputation was the only remedy, but Mr. Thomas thought otherwise, and was confident that he could save the foot. He covered it freely with his antiseptic sawdust, and retained this in position with his dishcloth-like article. He instructed me to change the sawdust every day, cleaning the foot as well as I could with a piece of stick, but never to wash it. The suppuration gradually ceased and the sinuses healed, but the foot assumed the shape of a dumpling, was of no use, and had to be amputated. Mr. Thomas wrote the prescription for the antiseptic sawdust for me on the bottom of a match box, and the composition of it was as follows :—

To four bucketfuls of sieved pitchpine sawdust, not sieved too fine, add, in solution, a mixture of chloride of lime ¼lb., crude carbolic acid 4oz., liq. hydragyri perchloridi 4oz. The chloride of lime, carbolic acid and liq. hydragyri perchloridi should be mixed with about two bucketfuls of water.

He very kindly invited me to visit him at 11, Nelson Street, Liverpool, where I was much interested in seeing some of his assistants, which comprised a joiner, a blacksmith, and a saddler. I also saw his carriage, which was a well-known object of interest in Liverpool. It resembled one of the old-fashioned fire engines, and he rode sideways in it.

TOM THUMB.

I have seen many interesting sights in Fishergate, but none more so than the miniature carriage, the Liliputian horses, and the diminutive coachman and footman of General Tom Thumb. Seated within the carriage, the General was a conspicuous object. He gave "At Homes" at the Bull Hotel, which I and my brothers and sisters had the privilege and pleasure of attending.

Charles Heywood Stratton (termed General Tom Thumb), an American, was exhibited in England by Mr. P. T. Barnum, in 1846. In February, 1863, in New York, when 25 years old, and 31 inches high, he married Lavinia Warren, aged 21, 32 inches high.

General Tom Thumb, his wife and child, and Commodore Nutt, another dwarf, came to England in December, 1864, and remained here some time. During the second visit to Preston they gave "At Homes." During this visit Commodore Nutt had the misfortune to fracture his kneecap, and I had the honour of paying him a professional visit at the Bull Hotel.

There was a rumour very prevalent that Tom Thumb was addicted to drink, in reference to which our old friend "Punch" remarked that it would be some consolation to his wife that he would not hold much.

Tom Thumb died 15th July, 1883.

SIR ALFRED TOBIN.

I made the acquaintance of Sir Alfred Tobin when he called to remind me that he was a candidate for the honour of representing Preston in Parliament.

He was one of my guests at a dinner which I gave to some of the most important members of the Lancashire and Cheshire Branch of the British Medical Association, when the annual meeting was held in Preston in 1913.

The last time I met him was at the Euston Hotel, in London, when he was on his way to a ball at the Earl of Derby's in St. James's Square.

On December 3rd, 1921, I received the following letter from him :—

Dear Sir Charles,

I was so delighted to read your cheery, bright reminiscent letter in the *Preston Herald*. It was like a whiff of salt sea air, reminding me of happy, healthy times in dear old Preston.

I always recall your constant kindness to me. I never forget the *Freeman* of Preston. With all good wishes,

Your affectionate friend,
ALFRED TOBIN.

SIR FREDERICK TREVES.

When I heard that Sir Frederick Treves had consented to favour the Corporation of Preston by accepting their invitation to open the new Isolation Hospital in Deepdale Road, I wrote and invited him to dine with me, and to remain at my house all night. His reply was :—

I am much obliged to you for your kind letter. I am sorry that I am compelled to make my visit to Preston so short, but in the early part of June I am very much occupied in London, and if I make arrangements to be away longer I may have to abandon them. I find that I can come by a train which leaves Euston at 11-30 a.m., and reaches Preston at 3-35 p.m. It is a restaurant train, so I will come by that.

Sir Frederick Treves is evidently a believer in the maxim, "Early to bed and early to rise, makes a man healthy, wealthy and wise." In one of his letters he says :—

I am glad you believe in early rising. I am writing this at 6 a.m., and it is a fine, clear morning.

We are told in an article which appeared in a recent number of *Chambers's Journal* on "Doctors, Old and New," that

Sir Frederick Treves rises every morning at five o'clock and breakfasts at seven o'clock.

It would be impossible to discover anyone who occupied a more responsible position than Sir Frederick Treves did when he was called upon to conduct the surgical measures which were necessary to save the life of King Edward the Seventh. During the anxiety associated with the King's illness, it was a consolation to every member of the medical profession that the surgical treatment of the King was under the control of such an eminent authority on the disease from which the King was suffering; medical men throughout the country were thus enabled to give confidence and hope to the general public.

When Sir F. Treves retired from private practice, it seems to have been a starting point for a display of renewed, if not increased energy. He commenced by making a tour round the world, during which he visited India, Burma, and Ceylon, China, Japan, and America, and his graphic description of what he saw and heard during his travels has been so attractive to the public that no less than five editions of his book, "On the Other Side of the Lantern," have been issued during a very short space of time. He displayed his patriotism by volunteering at the beginning of the Boer War to go to South Africa. He abandoned for a time his lucrative practice, and was appointed consulting surgeon with the Field Force. He served with Buller's Army in Natal, was present at the Battle of Colenso and through the prolonged operations which resulted in the relief of Ladysmith.

Sir Frederick Treves has been a great sanitary reformer, and has not only pointed out the physical effects of alcohol, but also what might not have been expected, the danger of tea shops. He is still an enthusiastic sanitary reformer, and has given great assistance in effecting an improvement in the Royal Army Medical Corps. Sir Frederick Treves has also given us some very interesting information about the County of Dorset, in the chief town of which, Dorchester, he was born.

The Isolation Hospital.

It was high time for Preston to have a properly equipped Isolation Hospital. A few years before this one was provided. As I was Medical Officer to the London and North-Western Railway Company, I was sent for by the stationmaster to see a man who was walking about the platform with an eruption on his face. I found that he was suffering from smallpox, which seemed to terrify the people on the platform. He had come on the train from Fleetwood, and when I asked him if he had seen his face in the looking-glass, he told me that he had slept all night in a shed where there was no looking-glass. I asked the stationmaster to let me have a porter to prevent the man from going into any of the waiting-rooms or leaving the station. I walked with the porter and the man to the house of the Medical Officer of Health, who lived in Winckley Square, a few yards from my own house. When he came to his front door I asked him if he would kindly give me an order for the admission of the man into the Ducker Hospital. The Ducker Hospital was a temporary building provided by the Corporation for the admission and treatment of cases of smallpox. The Medical Officer of Health shrugged his shoulders and said it was no use giving him an order for the Ducker Hospital, as it contained no matron, nurse, or other arrangement for the admission and treatment of smallpox cases. As I wished to protect the poor man from any further exposure and the public from danger, I walked with him and the porter to a building adjoining the Office of the Medical Officer of Health in Tithebarn Street. This place was used for the disinfection of clothing, and was warm and smelt strongly of sulphur. I next telephoned to the Master of Fulwood Workhouse, and asked if he would kindly admit a case of smallpox. He replied that it would be more than his place was worth if he were to do so, as the Guardians had given strict orders that he must not admit a case of smallpox under any circumstances whatever.

I next went to the Borough Police Office and explained

to the Inspector on duty the position in which I was placed. He very kindly sent a sergeant to the house of the Relieving Officer of the District. He repeated the objections which the Master of the Workhouse had expressed, but ultimately, under strong protest, gave the necessary order, and removed the man in the cab provided for infectious diseases to the Workhouse.

At the earliest possible opportunity the train in which the man had travelled from Fleetwood was shunted into a siding and all the carriages comprising it were disinfected.

The Isolation Hospital was the result of the indefatigable efforts of the late Alderman and ex-Mayor, Daniel Walter Brown, in spite of strenuous and discouraging opposition.

During his stay in Preston, Sir Frederick Treves visited the operating theatre of the Preston Royal Infirmary, and expressed his great admiration for it, and for all the arrangements connected with it.

COLONEL CHARLES J. TRIMBLE.

There is not a medical man in Preston or the neighbourhood with whom I have been longer or more pleasantly associated than with Colonel Charles Trimble.

I made his acquaintance when he first came to Bamber Bridge, and our friendship has never been interrupted by a single disturbing incident.

I have admired his connection with the ambulance movement, not only on account of the energy which he has displayed in promoting the spread of ambulance knowledge, but also for the length of time with which he has been engaged in it. He first took up ambulance work in 1883, when he instructed a class in this subject at Bamber Bridge, and up to the present time he still displays the greatest interest in it.

The organization known as the St. John Ambulance Brigade was formed in 1895, and Colonel Trimble was appointed Deputy Commandant to the No. 4 North-Western District. I have also admired, more than I can express, his patriotism in remaining so long an officer in the Territorial

Force. He joined the Preston Artillery Volunteers in July, 1878, and was connected with this unit until December, 1913, having had the command of it for nine years. In December, 1913, he joined the Territorial Reserve for Officers, and was mobilised for active service in the Great War on the 5th August, 1914. He was demobilised March, 1919. During the period of his service with the Volunteers, this Force was altered and reorganised as the Territorial Force. When I reflect on his services to his country during the recent war, I am lost in admiration of him.

In October, 1914, the Order of St. John decided to offer a Hospital containing 520 beds to the Government. This was done, and the authorities accepted the proposal. Etaples was chosen as the site of the institution. The building of the Hospital began in April, 1915, and to this locality some of the staff came on July 22nd, 1915.

The first convoy was taken in on September 8th, 1915, and after that the wheels of the unit never ceased to turn round—sometimes fairly quietly, and at other times with great rapidity and a whirl, indicating much work and strain —but with the magnificent staff, good equipment, and unity of purpose, no pressure ever affected the scientific or other efficiency of the work.

Those outside (well qualified to pass an opinion) expressed in no uncertain words their admiration and approval of the splendid work the Hospital was doing.

Colonel Trimble was in command for $2\frac{3}{4}$ years. Previously he had charge of the medical side of the Hospital for 12 months, and afterwards succeeded to the command.

It is only just to say that the St. John Ambulance Brigade Hospital was looked upon as one of the best, if not actually the best, hospital of its type in France.

When in May, 1918, the Huns bombed the hospital literally to pieces, killing and wounding several of the patients and personnel, it was then his privilege to notice that steadiness, bravery, and determination of the whole staff. This was a most trying time, and when on May 31st,

1918, the institution was devastated by enemy aircraft, then the opportunity was given of judging the grit and disregard for personal safety exhibited on all sides. The first care was in the interests of the helpless patients, and right nobly this duty was performed. In recognition of the excellent services rendered by the Hospital, 11 different classes of honours have been conferred by the King and the Order of St. John of Jerusalem. So badly was the Hospital knocked about by enemy aircraft that it could no longer be used, and in July, 1918, it was moved to Trouville, where it was rebuilt and reopened. About 1,000 patients have been admitted since Armistice Day came. During the four years it was in France, 48,000 sick and wounded passed through it.

QUEEN VICTORIA AT FLEETWOOD AND PRESTON.

I was present at Fleetwood on the 21st September, 1847, when Her Majesty Queen Victoria, Prince Albert, and the Royal children landed at Fleetwood in the Victoria and Albert en route from Scotland to London. Great rejoicings took place.

In October, 1852, the Queen determined to stay at Preston on her route from Balmoral to London. Extensive preparations were made to accord to Her Majesty a suitable reception. The station was decorated with flags, mottoes, etc. The first-class refreshment room, which was set apart for the Royal party, was elegantly decorated, several gentlemen from the town and neighbourhood contributing from their works of art for this purpose. Other rooms were likewise prepared for the Queen's suite and servants. The principal of the ladies and gentry, as well as a large concourse of the inhabitants of the town and neighbourhood, attended to do honour to Her Majesty and her family. The Mayor presented, on behalf of the Municipal authorities, a suitable address, and the Bishop of Manchester performed a similar office for the clergy. Her Majesty's reception was of the heartiest character, and afforded evident gratification to the Royal party, although some people were so rude in crowding

round the carriage, raising themselves on to the step, and peeping in, that Queen Victoria is said to have determined never to stop at Preston again.

Before the Preston Railway Station was rebuilt in 1882, there was no bookstall under the management of W. H. Smith & Son, but merely a large table at one end of the platform containing newspapers and a few periodicals. The saleswoman was a Miss Emily Lambert, who, on account of her walking along the side of the trains calling out "The Times," "Punch," was known to the regular passengers as "Miss Punch." She was a great favourite, and had a smile for everyone except for those who, in ignorance that the price of "The Times" was sixpence, offered her only two pence.

On a memorable occasion, however, she was seen to shed tears, and this was when, in 1852, Queen Victoria left the train for a short time at Preston Station. Miss Punch had in her hand a copy of "The Times," and a beautiful bouquet which she was about to present to the Queen, when she was rudely pushed aside by one of the Lancashire and Yorkshire Railway Directors. Much sympathy was felt for Miss Punch when she was seen to be weeping, and great indignation was expressed in reference to the officious director.

MEMBERS OF THE ROYAL FAMILY WHOM I HAVE SEEN IN PRESTON.

Queen Victoria in 1852.

Albert Edward Prince of Wales in 1885, when he came to lay the foundation stone of the Dock.

Albert Edward Prince of Wales in 1885, when he came to see the All-England Agricultural Show in Moor Park.

The Duke of Cambridge in 1867, when he came to open the new Town Hall.

The Duke of Cambridge in 1882, when he came, during the Guild Week, as the representative of the Duke and Duchess of Albany, who were unable to come in consequence of the illness of the Duke.

The Duke of Edinburgh in 1892, when he came to open the Dock.

King George and Queen Mary in 1913, when I and a few other Prestonians were presented to them at the Guild Hall.

H.R.H. the Duke of York, May 20th, 1920, when he came as the representative of the King to the investiture of several Prestonians and others who had earned distinctions in connection with the late war. My brother Freeman, Mr. Forshaw, and I had the pleasure of sitting opposite the Duke of York at the luncheon given by the Mayor at the Guild Hall.

The Prince of Wales in 1921, when I and other Prestonians were presented to him.

MEMBERS OF THE ROYAL FAMILY WHOM I HAVE SEEN ELSEWHERE.

Queen Victoria at the laying of the foundation stone of the Medical Examination Hall on the Victoria Embankment, London, 24th March, 1886. I had a very good view of both the Queen and Sir Wm. Jenner, and had the pleasure of hearing the fine band of the Scots Guards during the proceedings.

In 1887, at the Jubilee, I had a good view of Queen Victoria from the Royal College of Physicians in Cockspur Street, which, with Pall Mall, was included in the route through which the procession passed on its way to Westminster Abbey.

On June 21st, 1897, I saw Queen Victoria at the Diamond Jubilee, on her way to Westminster Abbey as the procession passed the Royal College of Physicians in Cockspur Street; Field Marshal the Right Honourable Lord Roberts, riding a white horse, was at the head of the procession, commanding the Colonial troops.

On May 21st, 1912, I was present when King George and Queen Mary opened the Royal Society of Medicine buildings in Henrietta Street, Cavendish Square. By arriving there early, I secured such a good place I could easily have touched Her Majesty's dress.

COLONEL DOUGLAS WARDROP.

I met Lieut.-Colonel Wardrop accidentally in London in 1912. I had not seen him for many years, and at first had a difficulty in recalling his name. He told me that he was Commandant of the Royal Army Medical College at Millbank, which included the Military Hospital to which some of the patients from Netley had been removed and at which a secondary course of instruction was given to Army Medical Officers of 10 years' standing and to all young officers of the R.A.M.C. and Indian Medical Service on joining.

He invited me to visit him at Millbank, and I was much interested in what I noticed there. In addition to seeing Sir David and Lady Bruce at work in their laboratory, I inspected what Colonel Wardrop called his menagerie, where rats, mice, rabbits and guinea pigs are kept for use in connection with scientific research, an illustration of which I noticed in a rat which was dying comfortably from sleeping sickness. Later on Colonel Wardrop was appointed Governor of Osborne, which is now a convalescent hospital for officers in His Majesty's Forces. He again very kindly invited me to spend a few days with him, a privilege which I appreciated very highly, as it afforded me the opportunity of enjoying the pleasure of inspecting a building and surroundings of great historic interest. Colonel Wardrop and his two daughters met me at Cowes and motored me to Osborne House. The portion of the house occupied by Colonel Wardrop, his wife and two daughters, contained two rooms which were particularly interesting, as what was his dining-room had been the night nursery and his drawing-room the day nursery of Queen Victoria's children when they were in residence at Osborne. It would occupy too much space if I were to describe all the objects of interest which I saw at Osborne, and the reflections which passed through my mind during Colonel Wardrop's engagement in his professional duties. I walked alone down the broad walk to the shore of Osborne Bay as Queen Victoria herself had done. I thought of the Royal and

other distinguished persons whom she had entertained, and the famous statesmen who had conferred with Her Majesty at Osborne.

Inside the house are the State Apartments, and the portion which is utilised as a Convalescent Home for Officers of the Navy and Army. The State Apartments consist of the dining-room, drawing-room, billiard-room and durbar-room. The billiard-room is really part of the drawing-room, from which it is divided by a very fine curtain.

The furniture, pictures, grand piano in the drawing-room, and works of art, etc., in the State Apartments were permitted by King Edward to remain there, and they have been as far as possible retained in the position in which they were originally placed. I had pointed out to me the room above the dining-room in which Queen Victoria passed away, and I was told that the blinds have remained down ever since that sad day.

In front of the house are some beautiful terraced gardens, and from the house the grounds slope down to the sea.

When I took leave of Colonel and Mrs. Wardrop and their daughters at Cowes, I little thought that a near relative of mine would soon after arrive at Osborne as a patient. On October 9th, 1913, my nephew, George Lamont Hobbs, major in the Connaught Rangers, was admitted to Osborne House, shortly after being invalided home from India. He left on December 16th, 1913, and spent Christmas in Galway. He returned to Osborne about the middle of February, and died there on June 2nd, 1914, aged 46. He passed away in the presence of his wife, his mother (my sister), and good Colonel Wardrop.

Colonel Wardrop was elected one of the House Surgeons at the Preston Infirmary in 1877, and left in 1879 with as good a record for efficiency and sociability as it was possible for any house surgeon to obtain. On leaving the Infirmary he joined the Military Service as a civil surgeon, and served his country during the Zulu War. Subsequently he joined the Medical Department of the Army and served in Egypt, India and other places.

During my visit to Osborne, Colonel and Mrs. Wardrop motored me to the well-known Royal National Hospital for consumption and diseases of the chest at Ventnor, Isle of Wight, which was established in 1869 on the separate house principle, and contains 177 beds.

Colonel Wardrop served two years in South Africa after leaving Preston, including the Kaffir, Sekukani and Zulu campaigns, and joined the Army Medical Service as soon as he returned to England. He served 20 years in various parts of India, and went to Khartoum in 1898, and from there to the affair at Crete. He was nearly four years at Millbank and nearly 10 years at Osborne, where he served during the Great War. During the war he acted as P.A.D.M.S. for the Isle of Wight, and between 5,000 and 6,000 officers passed through Osborne during his house governorship. Colonel Wardrop received the A.C.B. and C.V.O. during his service. He concludes his latest letter to me by stating that he is not sure but that the happiest part of his life was at the Preston Royal Infirmary.

MAJOR-GENERAL WARREN.

In June, 1899, I was requested by the St. John Ambulance Association officials to entertain the Duke of Newcastle from Saturday to Monday, on the occasion of his visit to Preston to inspect a large number of nurses on the North End football ground. As the Duke was unable to fulfil his engagement, Major-General Warren acted as his deputy, and it was a great pleasure to me to entertain him.

On the Sunday morning he attended St. George's Church with my sister whilst I was visiting my patients. I invited Brigadier-General Brownrigg, who commanded the Forces at Fulwood Barracks, to meet him at luncheon, and in the afternoon I took them to Lytham, St. Annes, and Blackpool. Like many other people, they were very much impressed with their visit to these places. At Blackpool, through the kindness of the Chief Constable, Mr. Derham, who accompanied us, we were allowed access to the Tower,

the Winter Gardens, and the Palace, which at that time were closed on Sundays.

When I remarked to Mr. Derham that probably there is not a finer ballroom than that at the Winter Gardens in any part of the United Kingdom, he looked at me and said, "There is not a finer ballroom in the world."

DR. H. DAVAN WETTON.

When I went to London in 1855, Mr. C. E. Willing was the organist at the Foundling Hospital Chapel, and he held the appointment from 1848 to 1879, when he was succeeded by Mr. Birkett Foster, son of the great painter. He was followed by Dr. Davan Wetton, appointed in 1892, whose acquaintance I made by taking a letter of introduction to him from my nephew, Frederick Gregson Shuttleworth, who at that time was assistant organist at St. Mary Abbotts, Kensington, and since the death of Mr. Henry Bird, has been the organist. Dr. Wetton had been Sir F. Bridge's assistant at the Abbey, and my nephew one of his articled pupils. Dr. Wetton explained the mechanism and showed me all the arrangements in connection with the organ, which was given by George Frederick Handel, who conducted a performance there of the "Messiah" for the benefit of the charity in the year 1749.

Shortly afterwards I invited Dr. and Mrs. Wetton to spend a few days with me at Preston. Since then their visit has been repeated on several occasions. During these visits I had the pleasure of taking them to several places in the neighbourhood:—Whitewell, Windermere, Rydal, Grasmere, Ullswater, Morecambe, Blackpool, Lytham, St. Annes, Fleetwood, Liverpool, Manchester, Southport, and Colwyn Bay. Ever since then, when I had occasion to go to London, I have attended the Sunday Service at the Foundling Hospital Chapel. I enjoyed their society very much. Mrs. Wetton is a charming, highly accomplished lady, and a splendid pianist. Dr. Wetton possesses many high musical distinctions. After our visit to Whitewell, on his return to London, he composed a hymn tune, and

christened it " Whitewell," and on the occasion of my visits to the Foundling Hospital since that time, it has been a great pleasure to me to hear it sung by the Foundling Choir.

Whenever I have known that Preston friends intended to go to the Foundling Hospital I have given them one of my address cards. On presenting this to Dr. Wetton they have been very much impressed by his kindness and attention to them. He has shown them the valuable pictures and other objects of interest at the Foundling Hospital, and they have returned home with very pleasant memories and a desire on some future occasion to visit the Foundling again.

SIR GERMAN SIMS WOODHEAD.

Sir Sims Woodhead was my guest when he came to Preston to speak at a three days' Conference of the National Temperance Society. He was Professor of Pathology at Cambridge since 1899. He was best known as the inventor of the process of chlorinating drinking water for the British troops during the war. It killed any germs that were in the water, and so prevented the spread of disease. He was a member of the Royal Commission on Tuberculosis in 1902, and of the Executive Committee of the Imperial Cancer Research Fund. He acted as Instructor of Laboratories in Military Hospitals in the United Kingdom, and was formerly Adviser in Pathology to the War Office, and was knighted in 1919. He occupied a very high position in being a Professor of Pathology at the University of Cambridge. He interested his audience very much at the meeting of the Temperance Society at Preston, by telling them of some of his investigations in reference to the effect of alcohol on man and the lower animals. His appeal to people to abstain from taking alcohol was calculated to have a greater effect than that of the ordinary temperance advocate. He took a very great interest in the Research Hospital at Cambridge, and I met him at dinner at Sir Clifford Allbutt's house at St. Radegunde, Chaucer Road, Cambridge, on the evening of the day on which I opened the Research Hospital.

I could write a very long list of medical men in Liverpool,

Manchester, and Preston, whom I have known and with whom I have been associated, but it would occupy too much space if I were to do so. I will, therefore, confine myself to those at present living. My acquaintance with some of them has been slight, with some of them very intimate, but I can truly say that I have received kindness and attention from all of them.

LIVERPOOL.—Alexander, C. B.; Barr, Sir J.; Bell, W. Blair; Bickersteth, R. A.; Bickerton, T. H.; Bradshaw, T. R.; Briggs, H.; Bywater, H. H.; Caton, R.; Gemmell, J. E.; Glynn, T. R.; Hay, J.; Heaney, F. J. S.; Holland, C. Thurstan; Jones, Sir R.; Jones, T. C. Littler; Larkin, F. C.; McAlister, C. J.; McKenna, R. W.; Newbolt, G. P.; Parker, Rushton; Paul, F. T.; Thomas, W. Thelwall.

MANCHESTER.—Brockbank, E. N.; Burgess, A. H.; Bury, J. S.; Coates, W.; Dearden, W. F.; Donald, Archibald; Fitzgerald, G. W.; Leech, E. B.; Melland, C. H.; Milligan, Sir W.; Moore, F. Craven; Murray, G. R.; Rayner, H. H.; Reynolds, E. S.; Smith, J. W.; Southam, F. A.; Steell, G.; Thorburn, Sir W.; Wilkinson, A. T.; Williamson, R. T.

I will only mention the Preston medical men to whom I have applied for information in reference to surgical operations, and they are :—Doctors Collinson, Derham, Duncan, A. S. Holden, A. Rayner, Sykes, Turnbull Smith, and A. Toulmin. There are 66 doctors in Preston, and I am on friendly terms with all of them.

THE ROYAL ALBERT INSTITUTION, LANCASTER.

In 1870 I was appointed Hon. Secretary of the Preston Committee, and in 1916, a member of the Institution's Central Committee.

In becoming associated with the committees of the Royal Albert Institution I made some important additions to my list of friends, and became more familiar with the working of this most benevolent institution.

The Royal Albert Institution was opened in December, 1870, for the care, education, and training of the improvable

feeble-minded of all classes belonging to the seven northern counties—Lancashire, Yorkshire, Cheshire, Westmoreland, Cumberland, Durham, and Northumberland. Special accommodation is reserved for private patients both at Brunton House and in the main buildings.

Accommodation has been provided for about 750 inmates, and the arrangements comprise every convenience for the specific treatment of the feeble-minded. The system of training is designed to secure, by special means, the physical, mental and moral improvement of the patients.

Besides the school instruction, training is given in a great variety of useful occupations. The boys are taught tailoring, shoe-making, basket-making, brush-making, book-binding, weaving, cord-making, baking, joinery, mat-making, cabinet-making, woodcarving, toy-making, and printing. There are excellent means of outdoor employment, and training in farm and garden work. The girls are trained in knitting, sewing, lace-making, hat-making, cooking, and other household occupations, and in toy-making and laundry work.

The results of training are shown by the following statistics :—Since the opening of the Institution in 1870, 3,863 patients have been admitted, nearly all of whom have been considerably improved, some 10 per cent. having become self supporting.

LANCASHIRE COUNTY CONSTABULARY.

When I retired from the office of Headquarters Surgeon, I received the following letter and the beautiful inkstand which I have given to the Harris Free Library Museum, and I have requested that it may be placed in the glass case which contains the casket and the document conferring upon me the Freedom of the Borough :—

[COPY]

Chief Constable's Office,
Lancashire Constabulary,
Preston,
5th December, 1921.

Dear Sir Charles,

I am forwarding on behalf of the Headquarters Staff of the Lancashire Constabulary a small present as a token of our esteem and regard for you.

I hope you will accept it with our very best wishes, and at the same time I should like to add that we are sending you this small present, not only to you in your capacity as late Police Surgeon, but also as a friend to all of us.

With kind regards.

Yours sincerely,
(Signed) H. P. P. LANE.

The following is the description given on the inkstand :—

PRESENTED TO SIR CHARLES BROWN
BY THE
HEADQUARTERS STAFF
OF THE
LANCASHIRE CONSTABULARY
IN
GRATEFUL REMEMBRANCE
OF HIS
27 YEARS SERVICE AS POLICE SURGEON.
1921.

ANECDOTES.

THE INEBRIATE SCHOOLMASTER.

A seedy-looking man called on me one day, at the request, he said, of a benevolent lady whom I know, to ask for an old suit of clothes. He told me that he was a schoolmaster out of employment, and that he could get a good situation if he had better clothes. Before I consented to help him, I said that I feared he was in trouble owing to his intemperate habits. His reply was, "It would be exceedingly wrong in me, Sir, if I were to endeavour to conceal from you the fact that my downward progress has been considerably facilitated by an intemperate use of intoxicating liquor."

THE MAN WHO WAS NOT AFRAID TO DIE.

An old man who had suffered from chronic bronchitis for several years, and was gradually approaching the end, appeared much worse when I called to see him, and when I asked him if any clergyman visited him, his reply was, "No, and I am not afraid to die, if that is what you are thinking about." I told him that I would ask one of the curates of the Parish Church to visit him, as he was living in that district. When I asked him why he was not afraid to die, his reply was, "Because I know the burial service off by heart." After the clergyman had been, the patient said that he did not think much of him. But I said, "He prayed with you and read to you." "Yes," was his answer, "He did a bit of both." "He told me about a man who went into a field and filled himself with husks."

SIR WILLIAM GULL AND THE CLERGYMAN.

Sir William Gull occupied one of the highest positions in the medical profession in 1861. He, in conjunction with the late Sir William Jenner, attended Prince Albert during his illness, which ended fatally a few days before December 25th, 1861.

A clergyman from the North of England called at Sir William's house and asked if he could see the doctor. The butler wished to know if he had made an arrangement to be examined on a particular day, as if not, he would put his name on the list, and Sir William might be able to see him next week, but he was afraid it might be the week after. The clergyman said that would not do at all, as he was only in London for a day or two, and as he was not feeling very well, he thought that Sir William Gull would just give him a bottle of medicine which would set him right.

THE LADY AND THE HARE.

The curate of one of the Preston churches received a present of a hare. His wife and the maid servant did not know how to prepare it for being cooked. One afternoon a friend who called to see her remarked, "You look fatigued." "Indeed I am," she replied, "for the servant and I have been trying all morning to pluck the hare, and we have not been able to make anything of it."

A WEALTHY MAN AND HIS WILL.

One of my patients, who died worth £150,000, had two brothers who were both well off, but were anxious that my patient should make a will, and wished me to try and persuade him to do so. I introduced the subject to him as delicately as I could several times, without effect, and on the last occasion when I did so he burst into tears and said, "I don't know what to do with my money."

A DIFFERENCE OF OPINION ABOUT A VERY RED FACE.

One day I had a discussion with a friend in reference to a man who had a very red face, and whose colour was believed by some to be due to excessive indulgence in alcohol, but which I knew was not so caused, as the suspected person was almost a total abstainer. My friend remarked, "When I was at Oxford a discussion arose in reference to a similar case, as to whether the redness was 'the rubicundity of inebriety' or 'the roseate hue of health,' and it was decided

that it is correct to say that if we judge merely from appearances we may be mistaken."

A Dinner Table Mistake.

Some men who were unaccustomed to see a dinner table laid out with finger glasses containing water and a small piece of lemon, were dining together at the expense of a friend who occupied a higher social position and to whom they had rendered a service. One of them raised the finger bowl to his lips and drank the contents, exclaiming to the others, "You are not drinking your lemon soup. It is excellent."

A Busy Solicitor.

A gentleman called one day at the office of a solicitor, whose staff consisted only of a boy, and the following conversation took place between them :—

"Is Mr. ———— in the office ? "

"No, Sir."

"When will he be in ? "

"Please, Sir, I don't know, Sir."

"Where does he live ? "

"Please, Sir, I don't know, Sir."

"Where do you send his letters to ? "

"Please, there never is none, Sir."

The Rich Man and Salmon.

A gentleman ordered his butler one day to go to the fishmonger's to purchase some salmon. On his return empty handed, when asked, "Where is the salmon ? " he replied. "Please, Sir, I did not get any, as I found that it was half a crown a pound." The gentleman was very angry and said, "Go back at once and bring me what I want. I can eat salmon, but I can't eat half crowns."

Gout in the Stomach.

A man who was what is called a free liver, sent for his medical attendant on account of a severe abdominal pain from which he was suffering. He was rocking to and fro

and pressing both hands on the front of his body, and exclaimed, "Doctor, I think I am going to die. I believe I have gout in my stomach." "Nothing of the sort," said the doctor, "it is merely duck swimming about in port wine in your stomach."

How the Appreciation of a Good Lunch was destroyed by Further Information.

An inspector of factories and a certifying surgeon had been visiting a mill a few miles from town, when, on their return homewards, they came up to a roadside inn. One of them remarked, "I wonder if we could get some lunch here!" and they agreed to try. The landlady, in reply to their inquiry, said that she could let them have some liver and bacon if that would do. As this was a dish which both of them liked, they agreed to have it. When the landlady came for payment, one of them said, "We have enjoyed our lunch very much. Do you often kill a calf?" They felt very uncomfortable when her reply was, "No, and we should not have killed that if it had been sound."

A Foxy Case.

Many years ago whilst waiting in the Assize Court at St. George's Hall, Liverpool, for my turn to be called as a medical witness, I heard the trial of a remarkable case, in which I am thankful to say I was not engaged. A horse dealer who had been a passenger in a train which had met with a slight collision near Rugby, sued the London and North-Western Railway Company for compensation for personal injuries. His counsel, Mr. Chas. Russell (who ultimately became Lord Russell of Killowen), after opening the case in the usual way, put a series of questions to the plaintiff in reference to his injuries, and his description of them was confirmed by a medical man, who added the information that as one of the results of the collision the plaintiff's urine had contained blood. As soon as the plaintiff and his doctor had finished their evidence, Mr. Samuel Pope, who at that time was one of the leaders on the Northern

Circuit, produced a letter, which was handed on to the witness with the request that he would examine it and state if the handwriting was his. The plaintiff was obliged to admit that it was, and much amusement was caused when Mr. Pope read aloud the contents of the letter, which were as follows :—

My Dear Wife,

I have been in a railway collision near Rugby. Thank God, I am not injured ; but, as I mean to have £1,000 out of the London and North-Western Railway Company, I am lying in bed and doing a little foxing.

Upon hearing this Mr. Charles Russell jumped up and said :—" I need scarcely assure your Lordship and the gentlemen of the Jury that I knew nothing whatever of this disgraceful business, and I am sure that the very respectable firm of solicitors who instructed me were equally ignorant of it, and I can have nothing more to do with the case." The explanation of this extraordinary disclosure was that there had been a family quarrel, and that the plaintiff's brother-in-law, having in some way become possessed of the letter, forwarded it to the District Superintendent of the London and North-Western Railway at Liverpool, who handed it to Mr. Samuel Pope, the counsel for the defendents. I must not omit to mention that blood had been purchased at a butcher's shop in Rugby for the alleged purpose of applying it to the capped hocks of a horse, and it was supposed that some of this had been mixed with some of the plaintiff's urine for the purpose of making his alleged injury appear all the more serious.

ANOTHER FOXY CASE.

This case reminds me of another in which a family quarrel led to a disclosure in the Assize Court, also causing much amusement. A young woman who had been slightly injured in a railway collision, sued the company for compensation. Amongst other evil consequences which were said to have resulted from her injuries, it was asserted that " her mind had become affected." Her brother, however, was called as a witness on behalf of the railway company, and

he described how his sister had been instructed to act when the company's doctor called to examine her. She was told that she must "Act the gobbin and sken like the devil." In Lancashire the word "gobbin" means a simple minded person, and "sken" is another term for squint.

Sir William Wylde and His Parlourmaid.

Sir William Wylde was an eminent Ophthalmic Surgeon in Dublin, and the father of Oscar Wilde. He invited me to have lunch with him one Sunday in May, 1863. I arrived at the station early and took a first-class ticket, thinking that he would be sure to do so for himself. However, when he arrived, he said, "Brown, what class are you going?" I replied that I had taken a first, as I thought that he would always travel first. "Oh, faith," he said, "I always go third." We had not been many minutes at the table before he turned towards the parlour-maid and said, "Mary, just run next door and see if they will lend us the mustard." This was Sir William's way of letting her know that she had omitted to put the cruet stand containing vinegar, pepper, and mustard on the table. Oscar and his twin brother who appeared to be about 12 or 14 years of age, seemed to enjoy the joke as much as I did. On another occasion I went with Sir William Wylde to see his patients at the Ophthalmic Hospital. A man appeared, clothed literally in rags and tatters. Sir William looked at him, and standing with his left eye closed, his right foot a few inches in advance of the other, and his right forefinger pointed at the man, said, "Now, my friend, when you have worn that suit a little longer on a Sunday, I think you might take it for everyday."

A Horse Seventy Years Old.

The Vicar of a village about half a mile from a large County Asylum paid a visit one day to the medical superintendent. On his way through the Asylum grounds he passed a stable, the door of which was open, and through which he saw a man cleaning a horse. The man touched his cap and said, "This is a very old horse, Sir. It was

at the Battle of Waterloo and all through the Indian Campaign in 1857." On arriving at the doctor's house, the Vicar, after an exchange of greetings, said, "Doctor, you have a wonderful horse in your stable. I have calculated as I have come along that it must be 70 years old." "How do you make that out?" said the doctor. The Vicar replied, "Because your groom told me that it was at the Battle of Waterloo and all through the Indian Mutiny business." He was surprised to hear that the man was not the doctor's groom, but a harmless lunatic who assisted him in his work.

A Temperance Sermon.

A clergyman gave out as his text the words addressed to Timothy by St. Paul, "Drink no longer water, but a little wine for thy stomach's sake and thine often infirmities." He began his sermon thus:—"There can be no doubt, my brethren, that when this advice was given, St. Paul thought that Timothy, who was a particular friend of his, was suffering from some form of indigestion."

A Harvest Thanksgiving Sermon.

At a very small village church, where the congregation consisted chiefly of farmers, a thanksgiving service was held after an exceptionally wet summer. The clergyman commenced his remarks with the following words, "The distribution of rain on the face of the earth, my brethren, is very uneven; for instance, in the Fiji Islands there is so little rain that an umbrella maker could not make a decent living."

In another harvest thanksgiving sermon, when alluding to a hot summer, he said, "My friends, there must be strange sights in tropical countries, particularly in the jungle, where may be seen the subtle monkeys frolicking in the branches, and the unwieldy elephants wallowing in the mud."

The Prisoner Who Wrote Sermons for Clergymen.

A prison doctor who took an interest in the antecedents

of prisoners, and who also had the reputation of being inquisitive about other people's affairs, asked a superior looking individual how he earned his living before he got into trouble. The doctor knew that he was in prison owing to his intemperate habits. The man hesitated in giving a reply, but ultimately said, " I don't like to tell you, sir, but I get my living by writing sermons for clergymen."

A Nonagenarian and His Halfpenny.

The old gentleman had two distant relatives spending the week-end with him. About midnight on the Saturday evening, they were enjoying their cigars in the room which was beneath his bedroom. They became rather uneasy when they heard him pacing the floor ; and fearing that he might be ill, one of them went quietly upstairs, knocked at his bedroom door, and expressed the hope that he was not ill. " Oh, no," he replied, " I am not ill, but my accounts won't balance by a halfpenny, and I don't intend to go to bed until they do." The venerable nonagenarian gave £6,700 about ten years before he died for the building and endowment of a church, and bequeathed £20,000 to the Infirmary.

The Future of Some Medical Students.

A small group of students at King's College, London, were having a friendly chat, when one of them suggested that it would be interesting to know what their respective views were in reference to the special department to which they would like to be attached, when they commenced, or a few years after they had commenced, private practice.

One of them said, I aspire to be an eminent ophthalmic surgeon ; another that he would devote himself to diseases of the ear ; another would restrict his practice to cases of throat and nose disease ; whilst a fourth said that he should like to have nothing to do with diseases below the waist. One of these gentlemen subsequently became the personal medical attendant of a member of the Royal Family.

AN UNPLEASANT SEQUEL TO A GOOD DINNER.

One day I was at the Preston Station when a train from Blackpool arrived, and I saw a gentleman whom I knew leaning out of a carriage window and beckoning to me. The platforms, at the period to which I allude, were below the level of the long wooden step of the railway carriage, and you had to be very careful in getting in and out.

On going up to him he said, "Doctor, I wish you would help me and let me have your arm as far as West Cliff. I have been dining with the Directors of the Clifton Arms Hotel, Blackpool, and my legs are drunk, but my head is all right." I was glad to hear afterwards that his difficulty in walking and fear of falling were only temporary troubles, and passed off as soon as he had enjoyed a good sleep. He was very emphatic in assuring me that his head was all right, and I believe that it was.

THE NEW VICAR AND THE OLD LANCASHIRE VERGER.

The old verger was seen by the new Vicar to take half a crown from the collection plate before presenting it at the altar rails. After service the Vicar spoke to the verger, saying how sorry he was that he should find him guilty of such an act. For a moment the verger was bewildered at the charge; then he said, when light dawned upon him, "You must not think that I have taken the money for myself. That half-crown is a bait. I have led off with it for the last fifteen years."

THE LABOURER AND SOCIALISM.

A Lancashire labourer was once asked to carry a banner in a Socialist procession, and the pay being satisfactory he consented. On the way he got into conversation with a "Comrade" who walked beside him, and asked him for some information about the new crusade. "Well," the Socialist said, "We contend that it is unjust for one man to have more than another, and we are going in for all sharing alike." "Oh! I see, and a very good idea too." The men were silent for a little while, and then the man

carrying the banner said, "And how much do you reckon it would be apiece?" "Well," said the other man, "Someone has calculated it at £47 16s. 11½d." "Forty-seven pounds," exclaimed the man. "Here, take hold of this blooming banner! I have £80 in the Co-operative Society!"

A Lancashire Collier and His Dog.

A Lancashire collier was scolded by a clergyman for keeping a dog at a time when work was bad to get and food was scarce. "Look how much better it would be for you and your family if you sold your dog and bought a pig!" "Yes, a bonny fool I should look! I could not go ratting with a pig."

The Fly as Instructor.

We all know the danger which may be caused by a fly. It is reputed to be a conveyor of typhoid fever and tuberculosis germs, and we are aware that it may come direct from a manure heap and settle on our milk and meat. We are all familiar with the disagreeable tickling which it causes, especially on a bald head, but we have never regarded it as an instructor. Dr. Walshe, one of the physicians to University College Hospital, London, and reputed to be a most minute and careful observer, was going round one of his wards with a number of students, when he said to his clinical clerk and note taker, "Write down, 'Fly crawls over patient's eyelids, patient does not wince.'" And some of the students laughed, but Dr. Walshe pointed out to them that there was nothing to laugh at. The fact that the patient did not wince showed that he was in a state of profound insensibility, and he reminded them of what they had been taught in reference to reflex actions.

An Operation in the Night Under Difficulties.

I was required to perform an operation for the relief of a strangulated hernia in the night, in a cottage house about nine miles from Preston. The patient was being put

under the influence of chloroform, and the anæsthetist said he was ready. Upon touching him with the knife, he raised his knee and sent the candlestick holding a tallow candle, the only light we had, up to the ceiling. We were obliged to wait until the candlestick came down, relight the candle, and then resume the operation. The case was a most unpromising one, as the hernia was very large and the operation had been delayed, but the man made a complete recovery. I heard nothing more of the case from the medical man under whose care he was at this period, but about six weeks afterwards the man called at my house one Saturday in his Sunday clothes to see me. He said, "Don't you know me, Doctor?" I replied that I could not at the moment remember, but when he told me that he was the man who I had cut in the night six weeks before, I had a distinct recollection of the whole incident.

THE JUDGE AND THE DOCTOR.

Several years ago a railway compensation case was being tried at the Liverpool Assizes, when the Company's doctor gave evidence which was very strongly opposed to the statements made by the plaintiff and his friends, when the Judge said, "Am I to understand, doctor, that you consider the plaintiff shamming?" The doctor replied, "I beg your Lordship's pardon, but we have no such word as 'Shamming' in our medical vocabulary."

A MISTAKEN SURGEON AND SOME CHAIRS.

A very distinguished surgeon visited an elderly gentleman who was supposed to be suffering from malignant disease in the abdomen. He examined the patient very carefully, said that he could not possibly recover, and that he did not think he would live more than three months. On taking leave of one of the relatives at the front door, he expressed his admiration for some chairs which he saw there, and said, "I shall be much obliged if you will let me know when the sale takes place." The gentleman lived a few years after the occurrence of this incident.

A Doctor's Grace.

At a dinner where the host was noted for his ingenuity as an amateur chef in serving up "rabbit" in all conceivable forms, a witty Preston medical practitioner, pressed to say grace, delivered himself of the following invocation :—

"Of rabbits hot, of rabbits cold,
Of rabbits young and rabbits old,
Of rabbits tender and rabbits tough,
We thank Thee, Lord, we've had enough."

A Loss of £10,000.

A friend of mine called one day to tell me that his father had left him £10,000. I congratulated him, and expressed the hope that he would take care of it. His reply was that he would either double it or lose it. My caution was evidently necessary, but unfortunately it was not acted upon. A few years afterwards he called on a relative of mine for an order for some goods for which he was an agent. She got into conversation with him on business in general, and asked him if he had ever read a little book called "How a Penny became £1,000." He gave a hearty laugh, and said that he did not know how a penny became £1,000 but he knew very well how £1,000 became a penny.

Dr. Brandt and his Breakfast.

A Dr. Moore came down from London in 1853 to be House Surgeon at the Preston Dispensary. The morning after his arrival he saw no signs of breakfast. He rang the bell, which the page boy answered, and expressed surprise when the doctor told him he wanted some breakfast. The boy asked him what he would like to have, and he replied, "Some toast, and an egg, and some coffee, or what other House Doctors had usually had." The boy replied that Dr. Brandt never had any proper breakfast, but used to have some bitter ale and toasted cheese about 12 o clock before he went out to see his patients.

A Discouraging Commencement.

A doctor who became one of the most distinguished consulting physicians in Lancashire and Cheshire told me that when he had completed his education at the Hospital and University he went into lodgings to commence private practice. At the end of a fortnight he had not had a single patient, and began to feel rather depressed. One day when he was looking out of the window, his spirits were raised by seeing a well-dressed man coming along the street and stopping at the door of the house in which he was living. He adjusted his collar and tie, and was looking forward to the pleasure of having his first patient, when the man said, "Please, sir, I have called to see if I may collect some of your bad debts."

A Rich Man and His Friend.

A rich man who lived very freely invited a friend to dine with him at his house near a village which was several miles from a railway station.

I don't know how long the friend remained at the dinner table, but it is reported that the influence of what he indulged in was such as to render him unable to successfully resist the treatment to which he was subjected. This consisted in shaving off the thick moustache and bushy whiskers on one side of his face, and sending him in this condition to the railway station.

The case reminds me of what I once read in the Second Book of Samuel, and the tenth chapter, which describe similar treatment the servants of King David received when they were sent by their master to comfort Hanun, on the death of his father Nahash, King of Ammon :—

1. And it came to pass after this, that the king of the children of Ammon died, and Hanun, his son, reigned in his stead.

2. Then said David I will shew kindness unto Hanun the son of Nahash, as his father shewed kindness unto me. And David sent to comfort him by the hand of his servants for his father. And David's servants came into the land of the children of Ammon.

3. And the princes of the children of Ammon said unto Hanun their Lord, Thinkest thou that David doth honour thy father, that he hath sent comforters unto thee ? Hath not David rather sent his servants unto thee, to search the city, and to spy it out, and to overthrow it ?

4. Wherefore Hanun took David's servants, and shaved off the one half of their beards, and cut off their garments in the middle, even to their buttocks, and sent them away.
5. When they told it unto David, he sent to meet them, because the men were greatly ashamed; and the king said, Tarry at Jericho until your beards be grown, and then return.

I read the above to my friend Dr. Arthur Rayner, and was very much interested when he told me the following story:—

"I was on that road from Ammon to Jericho on the Sunday prior to Christmas Day, 1918, and lunched on the far bank of the Jordan in blazing sunshine, with a Padre of our unit of the R.A.M.C. and an Arab in the employ of our Intelligence Department. In the afternoon we drove up the hill road, alongside the magnificent Wadi Kelt, where Elijah was fed by the ravens, into Jerusalem. That night I heard the Christmas carols sung in the English Cathedral in Jerusalem."

THE END.